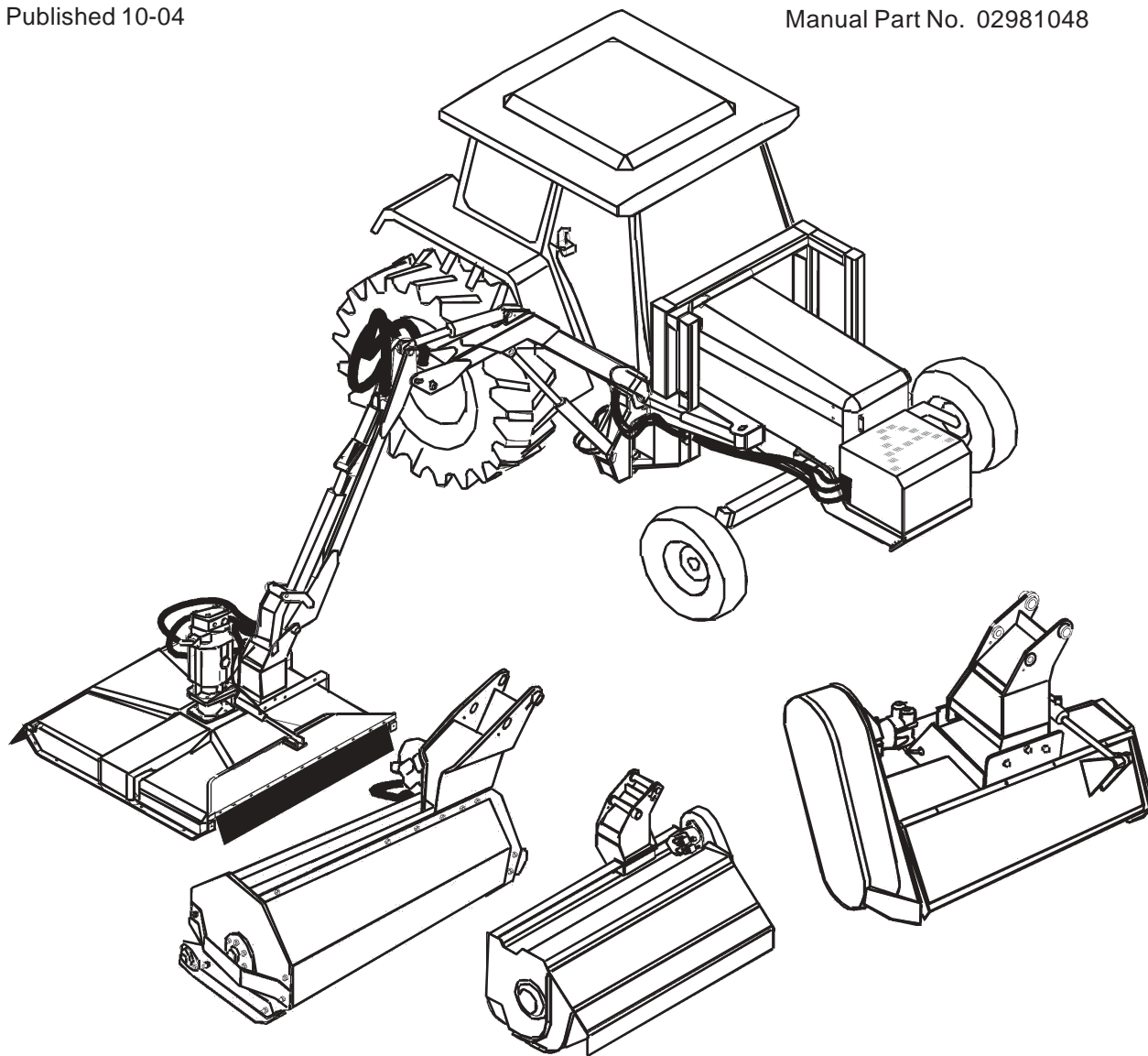




Assembly Instruction Manual NH TS100A, 115A, 125A & TS115A

Published 10-04

Manual Part No. 02981048



Tractors equipped with additional options, special equipment, tractor manufacturer modifications, new tractor models, or Customer alterations may prevent this Mount Kit from being properly mounted to the tractor. Alamo Group is not responsible for modifications to the MountKit to accommodate these differences.

ALAMO INDUSTRIAL

1502 E. Walnut
Seguin, Texas 78155
210-379-1480

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TO THE OWNER/OPERATOR/DEALER

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

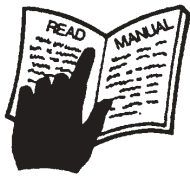
BEFORE YOU START!! Read the safety messages on the implement and shown in your manual. Observe the rules of safety and common sense!



DANGER

FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE SERIOUS BODILY INJURY OR EVEN DEATH TO OPERATOR AND OTHERS IN THE AREA.

1.



2. NO RIDERS. NO CHILDREN OPERATORS.



3. USE SAFETY SHOES, HARD HAT, SAFETY GLASSES, SEAT BELTS, ROPS & OPS



4. BLOCK UP SECURELY BEFORE WORKING UNDER.



1. Study and understand Operator's Manuals, Safety Decals, and Instructional Decals for tractor and implement to prevent misuse, abuse, and accidents. Practice before operating in a confined area or near passersby.

● Learn how to stop engine suddenly in an emergency. Be alert for passersby and especially children

2. Allow no children on or near folding mower or tractor. Allow no riders on tractor or implement. Falling off may cause serious injury or death from being run over by tractor or mower or contact with rotating blades.

3. Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seat belt securely fastened to prevent injury and possible death from falling off or tractor overturn.

● Personal Protective Equipment such as Hard Hat, Safety Glasses, Safety Shoes, & Ear Plugs are recommended.

4. Block up or support raised machine and all lifted components securely before putting hands or feet under or working underneath any lifted component to prevent crushing injury or death from sudden dropping or inadvertent operation of controls. Make certain area is clear before lowering or folding

5. Before transporting, put Lift Lever in detent or full-lift position. Install Transport Safety Devices securely on folding mowers. Put Booms securely in Transport Rest.

● Folding and Boom Mowers have raised center of gravity. Slow down when turning and on hillsides.

6. Make certain that SMV sign, warning lights, and reflectors are clearly visible. Follow local traffic codes.

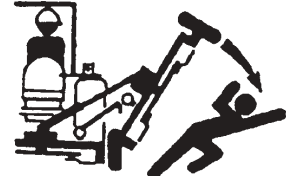
7. Never operate with Cutting Head or Folding Section raised if passersby, bystanders, or traffic are in the area to reduce possibility of injury or death from objects thrown by Blades under Guards or mower structure.

8. Before dismounting, secure implement in transport position or lower to ground.

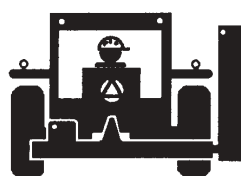
● Put tractor in park or set brake, disengage PTO, stop engine, remove key, and wait until noise of rotation has ceased to prevent crushing by entanglement in rotating parts which could cause injury or death.

● Never mount or dismount a moving vehicle. Crushing from runover may cause serious injury or death.

5. TRANSPORT SAFELY, LOCK UP.



6. USE SMV, LIGHTS, & REFLECTORS.



7. DO NOT OPERATE WITH CUTTER OR WING RAISED.



8. DO NOT MOUNT OR DISMOUNT WHILE MOVING.



02967827

WARRANTY INFORMATION:

Read and understand the complete Warranty Statement found in this Manual. Fill out the Warranty Registration Form in full and return it within 30 Days. Make certain the Serial Number of the Machine is recorded on the Warranty Card and on the Warranty Form that you retain. The use of "will-fit" parts will void your warranty and can cause catastrophic failure with possible injury or death.

INTRODUCTION

ABOUT THIS MANUAL:

The intent of this publication to provide the competent technician with the information necessary to perform the CORRECT Assembly to the Alamo Industrial Product. This will, in turn provide for complete customer satisfaction

It is hoped that the information contained in this and other Manuals will provide enough detail to eliminate the need for contact of the Alamo Industrial Technical Service Dept. However, it should be understood that many instances may arrive where correspondence with the Manufacturer is necessary.

CONTACTING MANUFACTURER: (Please help us Help You! Before You Call!)

Alamo Industrial Service Staff Members are dedicated to helping you solve your problem, or your customer's service problem as quickly and efficiently as possible. Unfortunately, we receive entirely to many calls with only a minimum amount of information. In some cases, the correspondent has never gone out to look at the equipment and merely calls inquiring of the problems described to him by the operator or customer.

Most calls received by Alamo Industrial Service can be classified into approx. 6 general categories.

1. Hydraulic or Mechanical Trouble Shooting.
2. Request for Technical Information or Specifications.
3. Mounting or Fitting Problem.
4. Special Service Problem.
5. Equipment Application Problems.
6. Tractor Problem Inquiries.

HOW YOU CAN HELP:

Make sure the call is necessary! Most of the calls received may not be necessary if the Dealer Service Technician would do the following.

1. Check the Service Information at your Dealership provided by Alamo Industrial, This would include, Service Bulletins, Information Bulletins, Parts Manuals, Operators Manuals, Assembly Manual or Service Manual, many of these are available via the Alamo Industrial Internet site (www.Alamo-Industrial.Com). Attempt to diagnose or repair problem before calling.

2. If a call to Alamo Industrial is needed, Certain Information should be available and ready for the Alamo Industrial Service Staff. Such information as, Machine Model, Serial Number, Your Dealer Name, Your Account Number and Any other information that will be useful. This information is vital for the development of a prompt and correct solution to the problem. This will also help to develop a database of problems and related solutions, which will expedite a solution to future problems of a similar nature.

3. The technician may be asked to provide detailed information about the problem including the results of any required trouble shooting techniques. If the information is not available, The technician may be asked to get the information and call back. Most recommendations for repairs will be based on the procedures listed in the Service Manual / Trouble Shooting Guide and Information provided by customer.

CONTACT ALAMO INDUSTRIAL:

Alamo Industrial, 1502 E. Walnut St. Seguin TX. 78155, Technical Service Dept. PH: 830-372-2708

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Section 1

Machete

Mounting Specifications

New Holland Tractor TS-100A, 115A, 125A & 115A

Mounting Specifications

New Holland TS100A Cab/2&4wd

As of 3-3-04

Closed Center, Load Sense Valve

10.00-16 (F-2) Min / 12.4-24 (R-1) Max Front Tire

18.4-30 (R-1) Min / 18.4-34 (R-1) Max Rear Tire

Mount Kits:

Machete Mount Kit 02980799

Options:

Lexan Window Kit 02980888

Side Screen Kit 02980642

Extra Machete Installation Manual 02981048

Restrictions:

1. Must be ordered with a high frame due to high opening hood design.
2. This mount kit includes exhaust modification kit #02980717 which allows the vertical A-post style exhaust to be moved in approximately 8 1/2" for boom transport clearance. (See Figure 1) The right handrail must also be removed for transport clearance on booms shorter than 24' (See Figure 1)
3. This kit includes a seat-mounted joystick. (See Figure 2) Other seat styles may require modification of this bracket at the dealer/customer's expense (See Figure 2)
4. The frame rails have been designed to provide clearance with the New Holland loader brackets which were incorporated into all production tractors effective January 12, 2004. As a result, the battery box will no longer hinge outward due to the orientation of the right hand rail. (See Figure 3) However, the battery can still be accessed and even removed with the assistance of one additional person.
5. Frame location is very critical in mounting this unit. It must be placed slightly higher than normal to allow the hood to open enough for air filter maintenance. Failure to set the frame correctly will warrant modification of the hood.
6. This mount kit includes the Neapco style driveline with double U-joints.
7. The Neapco driveline kit includes a pump box which shifts the hydraulic pump approximately 6 1/4" forward.
8. Alamo wheel weights fit standard flanged rims only. Other rim types may require an adapter to be provided at the dealer/customer's expense.
9. Lexan window insert #02966458 can not be installed with the side screen kit due to the extreme curvature of the glass door.
10. This mount kit was developed on a Cab/2wd TS100A. Every effort has been made to provide adequate tire clearance for tractors equipped with mechanical 4wd. Adjustment of the tread setting and steering stop may be necessary. In addition, an articulation block may be required, but has not been included at this time. Finally, the hoses in this kit were sized for a 2wd as well. We are hoping that little to no alteration will be necessary for the 4wd application. However, until a 4wd model is mounted for inspection at our Seguin facility, the dealer/customer is responsible for all necessary modifications as mentioned above.
11. Beware, additional counterweight may be required for tractors equipped with a 24' boom. Any such add on weight must be supplied at the dealer/customer's expense. Engineering will provide a recommendation only after such a configuration is mounted at the Seguin facility.
12. The Lexan window kit option is comprised of a molded piece of General Electric brand 3/8" Lexan with a scratch resistant coating on both sides. It has been designed as a replacement for the standard right hand, tempered glass door that comes equipped with the tractors (See Figure 4)

Machete (NH TS-100A, 115A.125A & 135A Asy. Man.) 10/04

Mounting Specifications

New Holland TS100A Cab/2&4wd



Figure 1: Replacement Exhaust Pipe (Elbow) & Bracket



Figure 2: Seat-Mounted Joystick



Figure 3: Battery Box Clearance w/RH Frame Rail



Figure 4: Optional Lexan Door Kit

Mounting Specifications

New Holland TS100A Cab/2&4wd

IMPORTANT NOTICE: The following Part / Assembly Numbers are for reference and should not be ordered as replacement parts, unless all the components in that assembly are wanted. These will break down to bills of material of the components. Some of numbers listed are NOT individual Parts but complete assemblies and/or box of assemblies. Check before ordering.

02980799 Machete Mount Kit - NH TS100A Cab 2 & 4 WD : Consist of the Following Items

Item	Part No.	Qty	Description
1.	02980804	1	WLDMT. RAIL LH TS100A MACHETE
2.	02980693	1	WLDMT, BOOM REST NH TS-A
3.	02980697	1	TUBE, CROSSMEMBER
4.	02971969	1	WLDMT, CWT
5.	02970758	1	WEIGHT,WHEEL 1400LBS
6.	02969602	1	WELDMENT, CWT TIE ROD
7.	02980800	1	COMP BOX, NEW HOLLAND TS100A
8.	02980905	1	WLDMT. RAIL RH TS100A MACHETE

02980800 Component Box: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02725900	2	SUPPORT PLATE
2	02959770	2	HOSE SUPPORT RING
3	02971538	1	PLATE, BOOM REST
4	02980699	1	PULLEY ADAPTER NH TS-A
5	02980696	1	WLDMT, BOOM REST STABILIZER
6	02980667	1	WLDMT FRONT MOUNT L.H. TS-A
7	02980668	1	WLDMT FRONT MOUNT R.H. TS-A
8	02980719	1	ASSY, TS-A PUMP MOUNT W/COVER
9	02980694	1	PLATE, BOOM REST STABILIZER
10	02980717	1	KIT EXHAUST RELOCATION
12	02980714	1	KIT JOYSTICK SEAT MOUNT
13	02753400	3	PLASTIC TIE-ON 15 LG
14	02966874	1	BOOT,CABLE
15	000859	2	TIE,PLASTIC
16	00763977	1	DECAL,NOTICE TO OWNER
17	02775500	10	PLASTIC TIE 21 LG.
18	02963524	1	DECAL:ATTENTION-BOOM SWINGING
19	02964677	1	DECAL,BOOM REST 02980800
20	02965093	1	DECAL-PROPER ENGINE OPERATING
21	02965262	1	DECAL- WARNING HOSE BURST
22	02967827	1	DECAL-MULTI HAZ 02980800
23	63118700	5	3/16X 7 PLASTIC TIE WRAP
24	02980801	1	BOLT BAG, NH TS100A MACHETE

Continued Next Page

Machete (NH TS-100A, 115A.125A & 135A Asy. Man.) 10/04

Mounting Specifications

New Holland TS100A Cab/2&4wd

Continued From Previous Page

Item	Part No.	Qty	Description
25	02969509	1	ADAPTER, HYD ELBOW 12MM - 4MJ 90DEG
26	02969508	1	ADAPTER, HYD STRAIGHT 22MM - 10MJ
27	02969401	1	ADAPTER, HYD ELBOW 10FJX - 8MJ 90
28	02975000	1	ADAPTER, HYD STRAIGHT 12MJ - 27MM
29	02980817	1	ADAPTER, HYD 12FJX - 8MJ 9
30	02969418	1	HOSE #16 -16FJX - 16FJX - 66LG
31	02969419	1	HOSE #16 -16FJX - 16FJX - 66LG
32	02969420	1	HOSE #16 -16FJX - 16FJX - 62LG
33	02976714	1	HOSE # 8 - 8FJX - 8FJX - 190" LG
34	02976719	1	HOSE # 8 - 8FJX - 8FJX90 - 190" LG
38	02976726	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
39	02976727	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
42	02976730	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
43	02976731	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
46	02980805	1	RAIL, TANK LH
47	02980807	1	WLDMT. RH TANK RAIL TS100A
48	02977901	1	HOSE # 6 - 6FJX - 6MJ - 56" LG
49	02977902	1	HOSE # 6 - 6FJX - 6MP - 56" LG
50	02977903	1	HOSE # 6 - 6FJX - 6MP - 76" LG
51	02977904	1	HOSE # 6 - 6FJX - 6MP - 76" LG
52	02976742	1	HOSE # 4 - 4FJX - 4MJ - 76" LG
53	02976743	1	HOSE # 4 - 4FJX - 4MJ - 76" LG
54	02981008	1	HOSE # 4 - 4FJX - 4FJX - 190" LG
55	02981048	1	MANUAL, INST NEW HOLLAND TS-A
56	02981129	1	KIT, HYDRAULIC CONNECTION
57	02982000	1	DRIVELINE, MODIFIED 02975257A

Component Box P/N 02980800 is in Mount Kit P/N 02980799

02980801 Bolt Bag: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02918600	8	HEXB 3/4"-10UNC X 2" PL GR8
2	00037200	17	LOCKNUT 3/4"-NC, TOPLOCK
3	02975692	12	HHCS M20-P2.5 -50MM PL GR10.9
4	02971158	12	LOCKWASHER, 20MM
5	00001300	6	LOCKWASHER, 1/2"
6	02976344	4	BOLT, HEX HEAD 7/16"-NC X 1-1/4 PL GR8
7	00022200	4	LOCKWASHER, 7/16" PL
8	02980720	4	BOLT, HEX HEAD M12-P1.75 X 40 PL GR10.9
9	00754566	4	LOCKWASHER, 12MM
10	02980721	2	BOLT, HEX HEAD 1"-8UNC X 10-1/2" PL GR 8
11	02980722	2	BOLT, HEX HEAD 1"-8UNC X 11-1/2" PL GR 8

Continued Next Page

Mounting Specifications

New Holland TS100A Cab/2&4wd

Continued From Previous Page

02980801 Bolt Bag: Consist of the following Item No.

Item	Part No.	Qty	Description
12	00059500	4	NUT, HEX 1"-NC PL
13	02032200	4	LOCKWASHER, STD 1"
14	02959587	2	BOLT, HEX HEAD, 3/4"-10 NC X 6" PL GR8
15	5312316	10	WASHER, 3/4" HARDENED
16	02980723	4	BOLT, HEX HEAD M18-P1.5 X 80 PL GR10.9
17	02975957	4	BOLT, HEX HEAD M18-P1.5 X 100MM PL GR10.9
18	02970066	8	LOCKWASHER, 18MM
19	02956765	4	BOLT, HEX HEAD 1/2"-NC X 4-1/2" PL GR8
20	00002700	8	FLATWASHER, 1/2 PL STD
21	00001200	4	NUT, HEX 1/2"-NC PL
22	02980730	4	BOLT, HEX HEAD 3/4"-10 NC X 4-1/4" PL GR8
23	02962777	2	BOLT, SOCKET HEAD 3/4"-NC X 11" PL GR8
24	02963646	1	BOLT, HEX HEAD 3/4"-NC X 2-1/2" PL GR8
25	02776600	2	BOLT, HEX HEAD 1/2"-NC x 1-1/4" PL GR8
26	00759635	2	FLATWASHER, HARDENED 1/2" NON-PLTD
27	02976387	6	BOLT, HEX HEAD 5/8"-NC X 1-1/2" PL GR8
28	00010300	6	LOCKWASHER, 5/8"

Bolt Bag P/N 02980801 is in Component Box P/N 02980800 which is in Mount Kit P/N 02980799

02980717 Exhaust Relocation Kit: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02980649	1	WELDMENT EXHAUST BRACKET
2	02980718	1	WELDMENT, TURBO DOWNPIPE
3	02980584	2	KIT 3" EXHAUST CLAMP
4	02980727	4	BOLT, SOCKET HEAD, M8-P1.25 X 35mm PL GR10.9
5	02980728	3	BOLT, HEX HEAD, M12-P1.75 X 30mm PL GR10.9
6	701513C	3	FLATWASHER, 12 MM
7	00754566	3	LOCKWASHER, 12MM
8	02981771	1	EXHAUST STABILIZER BRACKET, TOP
9	02980584	1	KIT, 3" EXHAUST CLAMP
10	00753642	2	BOLT, HEX HEAD 3/8"-NC X 1-1/4" PL GR5
11	00015800	2	LOCKNUT, TOPLOCK 3/8"

Exhaust Relocation Kit P/N 02980717 is in Component Box P/N 02980800 which is in Mount Kit P/N 02980799

Mounting Specifications

New Holland TS100A Cab/2&4wd

02980714 Joystick Seat Mount Kit: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02980715	1	WELDMENT, JOYSTICK STAND - SEAT MOUNT
2	00011700	1	LOCKWASHER, 5/16" PL STD
7	00011400	2	BOLT HEX 3/8"-NC X 1"
8	00012101	2	LOCKWASHER, 3/8" PL
9	00011100	2	FLATWASHER, STD 3/8"
11	02980635	1	DRAWING, INSTALL SEAT MOUNT JOYSTICK
12	00753723	1	BOLT, HEX HEAD M8-P1.25 X 25mm

Joystick Seat Mount Kit P/N 02980714 is in Component Box P/N 02980800 which is in Mount Kit P/N 02980799

02980719 Pump Mount Kit w/Cover: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02980666	1	WLDMT PUMP MOUNT TS-A
2	02980398	1	COVER, DRIVE LINE
3	00021400	4	BOLT, HEX HEAD 1/4"- NC X 3/4" PL GR5
4	00024100	4	FLATWASHER, STD 1/4 " PL
5	00017000	4	LOCKWASHER, 1/4" PL ST

Pump Mount Kit P/N 02980719 is in Component Box P/N 02980800 which is in Mount Kit P/N 02980799

Mounting Specifications

New Holland TS100A ROPS/2&4wd

As of Date: 5-11-04

Closed Center, Load Sense Valve

10.00-16 (F-2) Min / 12.4-24 (R-1) Max Front Tire

18.4-30 (R-1) Min / 18.4-34 (R-1) Max Rear Tire

Mount kits:

Machete Mount Kit (ROPS Only) 02981063

Options:

Aluminum Canopy (FOPS Rated) 02980929

Extra Machete Installation Manual 02981048

Rear Screen Kit 02981109

Restrictions:

1. Must be ordered with a high frame due to high opening hood design.
2. This mount kit includes exhaust modification kit #02980717 which allows the vertical A-post style exhaust to be moved in approximately 8 1/2" for boom transport clearance. (See Figure 1 - TS100A Cab Above)
3. This kit includes a seat-mounted joystick. Other seat styles may require modification of this bracket at the dealer/customer's expense.
4. The frame rails have been designed to provide clearance with the New Holland load brackets which were incorporated into all production tractors effective January 12, 2004. As a result, the battery box will no longer hinge outward due to the orientation of the right hand rail. (See Figure 3 - TS100A Cab Above) However, the battery can still be accessed and even removed with the assistance of one additional person.
5. Frame location is very critical in mounting this unit. It must be placed slightly higher than normal to allow the hood to open enough for air filter maintenance. Failure to set the frame correctly will warrant modification of the hood.
6. This mount kit includes the Neapco style driveline with double U-joints.
7. The Neapco driveline kit includes a pump box which shifts the hydraulic pump approximately 6-1/4" forward.
8. Alamo wheel weights fit standard flanged rims only. Other rim types may require an adapter to be provided at the dealer/customer's expense.
9. This mount kit was developed on a Cab/2wd TS100A. Every effort has been made to provide adequate tire clearance for tractors equipped with mechanical 4wd. Adjustment of the tread setting and steering stop may be necessary. In addition, an articulation block may be required, but has not been included at this time. Finally, the hoses in this kit were sized for a 2wd as well. We are hoping that little to no alteration will be necessary for the 4wd application. However, until a 4wd model is mounted for inspection at our Seguin facility, the dealer/customer is responsible for all necessary modifications as mentioned above.
10. Beware, additional counterweight may be required for tractors equipped with a 24' boom. Any such add on weight must be supplied at the dealer/customer's expense. Engineering will provide a recommendation only after such configuration is mounted at the Seguin facility.
11. The operator's "cage" now includes a full Lexan side shield as standard equipment, though ROPS cages will maintain an expanded metal cover above the operator. Be aware that a tractor with mounted canopy was unavailable during the development phase of the canopy cage. Though it should fit fairly well with the Perry Co. brand canopy which we sell, be aware that some modification may be necessary. Furthermore, the dealer/customer is responsible for such alterations until a proper check fit can be conducted at Seguin facility.

Machete (NH TS-100A, 115A.125A & 135A Asy. Man.) 10/04

Mounting Specifications

New Holland TS100A ROPS/2&4wd



Figure 1: Replacement Exhaust Pipe (Elbow) & Bracket



Figure 2: Seat-Mounted Joystick



Figure 3: Battery Box Clearance w/RH Frame Rail

Mounting Specifications

New Holland TS100A ROPS/2&4wd

IMPORTANT NOTICE: The following Part / Assembly Numbers are for reference and should not be ordered as replacement parts, unless all the components in that assembly are wanted. These will break down to bills of material of the components. Some of numbers listed are NOT individual Parts but complete assemblies and/or box of assemblies. Check before ordering.

02981063 Machete Mount Kit - NH TS100A ROPS 2 & 4 WD : **Consist of the Following Items**

Item	Part No.	Qty	Description
1.	02980804	1	WLDMT. RAIL LH TS100A MACHETE
2.	02980693	1	WLDMT, BOOM REST NH TS-A
3.	02980697	1	TUBE, CROSSMEMBER
4.	02971969	1	WLDMT, CWT
5.	02970758	1	WEIGHT,WHEEL 1400LBS
6.	02969602	1	WELDMENT, CWT TIE ROD
7.	02981064	1	COMP BOX, NEW HOLLAND TS100A
8.	02980905	1	WLDMT. RAIL RH TS100A MACHETE
9.	02980998	1	CAGE KIT, NH TS-A ROPS

02981064 Component Box: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02725900	2	SUPPORT PLATE
2	02959770	2	HOSE SUPPORT RING
3	02971538	1	PLATE, BOOM REST
4	02980699	1	PULLEY ADAPTER NH TS-A
5	02980696	1	WLDMT, BOOM REST STABILIZER
6	02980667	1	WLDMT FRONT MOUNT L.H. TS-A
7	02980668	1	WLDMT FRONT MOUNT R.H. TS-A
8	02980719	1	ASSY, TS-A PUMP MOUNT W/COVER
9	02980694	1	PLATE, BOOM REST STABILIZER
10	02980717	1	KIT EXHAUST RELOCATION
12	02980714	1	KIT JOYSTICK SEAT MOUNT
13	02753400	3	PLASTIC TIE-ON 15 LG
15	000859	2	TIE, PLASTIC
16	00763977	1	DECAL, NOTICE TO OWNER
17	02775500	10	PLASTIC TIE 21 LG.
18	02963524	1	DECAL: ATTENTION-BOOM SWINGING
19	02964677	1	DECAL, BOOM REST
20	02965093	1	DECAL-PROPER ENGINE OPERATING
21	02965262	1	DECAL- WARNING HOSE BURST
22	02967827	1	DECAL-MULTI HAZ
23	63118700	5	3/16X 7 PLASTIC TIE WRAP
24	02980801	1	BOLT BAG, NH TS100A MACHETE

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Mounting Specifications

New Holland TS100A ROPS/2&4wd

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Item	Part No.	Qty	Description
25	02969509	1	ADAPTER, HYD ELBOW 12MM - 4MJ 90DEG
26	02969508	1	ADAPTER, HYD STRAIGHT 22MM - 10MJ
27	02969401	1	ADAPTER, HYD ELBOW 10FJX - 8MJ 90
28	02975000	1	ADAPTER, HYD STRAIGHT 12MJ - 27MM
29	02980817	1	ADAPTER, HYD 12FJX - 8MJ 90
30	02969418	1	HOSE #16 -16FJX -16FJX - 66" LG
31	02969419	1	HOSE #16 -16FJX -16FJX - 66" LG
32	02969420	1	HOSE #16 -16FJX -16FJX - 62" LG
33	02976714	1	HOSE # 8 - 8FJX - 8FJX - 190" LG
34	02976719	1	HOSE # 8 - 8FJX - 8FJX90 - 190" LG
38	02976726	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
39	02976727	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
42	02976730	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
43	02976731	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
46	02980805	1	RAIL, TANK LH
47	02980807	1	WLDMT. RH TANK RAIL TS100A
48	02977901	1	HOSE # 6 - 6FJX - 6MJ - 56" LG
49	02977902	1	HOSE # 6 - 6FJX - 6MP - 56" LG
50	02977903	1	HOSE # 6 - 6FJX - 6MP - 76" LG
51	02977904	1	HOSE # 6 - 6FJX-6MP - 76LG
52	02976742	1	HOSE # 4 - 4FJX - 4MJ - 76" LG
53	02976743	1	HOSE # 4 - 4FJX - 4MJ - 76" LG
54	02981008	1	HOSE # 4 - 4FJX - 4FJX -190" LG
55	02981048	1	MANUAL,INST NEW HOLLAND TS-A
56	02981129	1	KIT, HYDRAULIC CONNECTION
57	02982000	1	DRIVELINE, MODIFIED 02975257A

Component Box P/N 02981064 is in Mount Kit P/N 02981063

02980801 Bolt Bag: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02918600	8	HEXB 3/4"-10UNC X 2" PL GR8
2	00037200	17	LOCKNUT 3/4"-NC, TOPLOCK
3	02975692	12	HHCS M20-P2.5 -50MM PL GR10.9
4	02971158	12	LOCKWASHER, 20MM
5	00001300	6	LOCKWASHER, 1/2"
6	02976344	4	BOLT, HEX HEAD 7/16"-NC X 1-1/4 PL GR8
7	00022200	4	LOCKWASHER, 7/16" PL
8	02980720	4	BOLT, HEX HEAD M12-P1.75 X 40 PL GR10.9
9	00754566	4	LOCKWASHER, 12MM
10	02980721	2	BOLT, HEX HEAD 1"-8UNC X 10-1/2" PL GR 8
11	02980722	2	BOLT, HEX HEAD 1"-8UNC X 11-1/2" PL GR 8

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Mounting Specifications

New Holland TS100A ROPS/2&4wd

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02980801 Bolt Bag: Consist of the following Item No.

Item	Part No.	Qty	Description
12	00059500	4	NUT, HEX 1"-NC PL
13	02032200	4	LOCKWASHER, STD 1"
14	02959587	2	BOLT, HEX HEAD, 3/4"-10 NC X 6" PL GR8
15	5312316	10	WASHER, 3/4" HARDENED
16	02980723	4	BOLT, HEX HEAD M18-P1.5 X 80 PL GR10.9
17	02975957	4	BOLT, HEX HEAD M18-P1.5 X 100MM PL GR10.9
18	02970066	8	LOCKWASHER, 18MM
19	02956765	4	BOLT, HEX HEAD 1/2"-NC X 4-1/2" PL GR8
20	00002700	8	FLATWASHER, 1/2 PL STD
21	00001200	4	NUT, HEX 1/2"-NC PL
22	02980730	4	BOLT, HEX HEAD 3/4"-10 NC X 4-1/4" PL GR8
23	02962777	2	BOLT, SOCKET HEAD 3/4"-NC X 11" PL GR8
24	02963646	1	BOLT, HEX HEAD 3/4"-NC X 2-1/2" PL GR8
25	02776600	2	BOLT, HEX HEAD 1/2"-NC x 1-1/4" PL GR8
26	00759635	2	FLATWASHER, HARDENED 1/2" NON-PLTD
27	02976387	6	BOLT, HEX HEAD 5/8"-NC X 1-1/2" PL GR8
28	00010300	6	LOCKWASHER, 5/8"

Bolt Bag P/N 02980801 is in Component Box P/N 02981064 which is in Mount Kit P/N 02981063

02980717 Exhaust Relocation Kit: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02980649	1	WELDMENT EXHAUST BRACKET
2	02980718	1	WELDMENT, TURBO DOWNPIPE
3	02980584	2	KIT 3" EXHAUST CLAMP
4	02980727	4	BOLT, SOCKET HEAD, M8-P1.25 X 35mm PL GR10.9
5	02980728	3	BOLT, HEX HEAD, M12-P1.75 X 30mm PL GR10.9
6	701513C	3	FLATWASHER, 12 MM
7	00754566	3	LOCKWASHER, 12MM
8	02981771	1	EXHAUST STABILIZER BRACKET, TOP
9	02980584	1	KIT, 3" EXHAUST CLAMP
10	00753642	2	BOLT, HEX HEAD 3/8"-NC X 1-1/4" PL GR5
11	00015800	2	LOCKNUT, TOPLOCK 3/8"

Exhaust Relocation Kit P/N 02980717 is in Component Box P/N 02980800 which is in Mount Kit P/N 02980799

Mounting Specifications

New Holland TS100A ROPS/2&4wd

02980714 Joystick Seat Mount Kit: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02980715	1	WELDMENT, JOYSTICK STAND - SEAT MOUNT
2	00011700	1	LOCKWASHER, 5/16" PL STD
7	00011400	2	BOLT HEX 3/8"-NC X 1"
8	00012101	2	LOCKWASHER, 3/8" PL
9	00011100	2	FLATWASHER, STD 3/8"
11	02980635	1	DRAWING, INSTALL SEAT MOUNT JOYSTICK
12	00753723	1	BOLT, HEX HEAD M8-P1.25 X 25mm

Joystick Seat Mount Kit P/N 02980714 is in Component Box P/N 029801064 which is in Mount Kit P/N 02981063

02980719 Pump Mount Kit w/Cover: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02980666	1	WLDMT PUMP MOUNT TS-A
2	02980398	1	COVER, DRIVE LINE
3	00021400	4	BOLT, HEX HEAD 1/4"- NC X 3/4" PL GR5
4	00024100	4	FLATWASHER, STD 1/4 " PL
5	00017000	4	LOCKWASHER, 1/4" PL ST

Pump Mount Kit P/N 02980719 is in Component Box P/N 02981064 which is in Mount Kit P/N 02981063

Mounting Specifications

New Holland TS115A/125A/135A Cab/2&4wd

Closed Center, Load Sense Valve

As of Date: 4-3-04

10.00-16 (F-2) Min / 14.9-24 (R-1W) Max Front Tire

18.4-30 (R-1) Min / 18.4-34 (R-1W) Max Rear Tire

Mount Kits:

Machete Mount Kit02980902

Options:

Lexan Window Kit02980888

Side Screen Kit02980642

Extra Machete Installation Manual 02981048

Restrictions:

1. Must be ordered with a high frame due to high opening hood design.
2. This mount kit includes exhaust modification kit #02980916 allowing the vertical A-post style exhaust to be moved in approx 6-1/2" for boom transport clearance. *(Figure 1 & 4)* As a result, the RH loader bracket (included on most models) must be removed for proper exhaust clearance. The right handrail may also need to be removed for transport clearance on most booms.
3. This kit has seat-mounted joystick. *(See Figure 2 - TS100A Cab Above)* Other seat styles may require modification of this bracket at the dealer/customer's expense.
4. The frame rails are designed to provide clearance w/ the New Holland loader brackets which were incorporated in all production tractors effective January 12, 2004. As a result, the battery box will no longer hinge outward due to the orientation of the right hand rail. *(See Figure 3 - TS100A Cab Above)* However, the battery can still be accessed and even removed with the assistance of one additional person.
5. Frame location very critical in mounting unit. It must be placed slightly higher than normal to allow hood to open enough for air filter maintenance. Failure to set the frame correctly will warrant modification of the hood.
6. This mount kit has Neapco style driveline w/ double U-joints. The Neapco driveline kit includes a pump box which shifts the hydraulic pump approximately 6-1/4" forward.
8. Alamo wheel weights fit standard flanged rims only. Other rim types may require an adapter to be provided at the dealer/customer's expense.
9. Lexan window insert #02966458 can not be installed with the side screen kit due to the extreme curvature of the glass door.
10. Mount kit was developed f/ Cab/4wd TS115A A-Boom. Every effort was made to for adequate tire clearance for tractors equipped with mechanical 4wd. Adjustment of the tread setting and steering stop may be necessary. In addition, an articulation block may be required, but has not been included at this time. Finally, the hoses in kit were sized from the *TS100A (4 cyld)* Machete. We are hoping that little to no alteration will be necessary for the 6 cyld application. Furthermore, the TS125A & 135A are reportedly equipped with Iveco engines. Though the driveline should fit correctly to the crankshaft pulley, we have no way of checking for proper driveline access. Until all three models have been mounted for inspection at our Seguin facility, the dealer/customer will be held responsible necessary modifications as mentioned above.
11. Beware, additional counterweight may be required for tractors equipped with a 24' boom. Any such add on weight must be supplied at the dealer/customer's expense. Engineering will provide a recommendation only after such a configuration is mounted at the Seguin facility.
12. The Lexan window kit option is comprised of a molded piece of General Electric brand 3/8" Lexan with a scratch resistant coating on both sides. It has been designed as a replacement for the standard right hand, tempered glass door that comes equipped with the tractors.

Machete (NH TS-100A, 115A.125A & 135A Asy. Man.) 10/04

Mounting Specifications

New Holland TS115A/125A/135A Cab/2&4wd



Figure 1: Replacement Exhaust Pipe (Elbow) & Bracket



Figure 2: Seat-Mounted Joystick



Figure 3: Battery Box Clearance w/RH Frame Rail



Figure 1: Replacement Exhaust (Prototype Shown)

Mounting Specifications

New Holland TS115A/125A/135A Cab/2&4wd

IMPORTANT NOTICE: The following Part / Assembly Numbers are for reference and should not be ordered as replacement parts, unless all the components in that assembly are wanted. These will break down to bills of material of the components. Some of numbers listed are NOT individual Parts but complete assemblies and/or box of assemblies. Check before ordering.

02980902 Machete Mount Kit - NH TS115A, 125A & 135A Cab 2/4 WD: Consist of the Following Items

Item	Part No.	Qty	Description
1	02915300	1	SLOPEMOWER SHIPPING PALLET
2	02980693	1	WLDMT, BOOM REST NH TS-A
3	02980697	1	TUBE, CROSSMEMBER
4	02971969	1	WLDMT, CWT JD 6000 SERIES
5	02970758	1	WEIGHT,WHEEL 1400LBS
6	02969602	1	WELDMENT, CWT TIE ROD
7	02980903	1	COMP. BOX NH TS115A MACHETE
8	02980896	1	WLDMT. RAIL LH TS115A MACHETE
9	02980904	1	WLDMT. RAIL RH TS115A MACHETE

02980903 Component Box: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02725900	2	SUPPORT PLATE
2	02959770	2	HOSE SUPPORT RING
3	02971538	1	PLATE, BOOM REST
4	02980699	1	PULLEY ADAPTER NH TS-A
5	02980696	1	WLDMT, BOOM REST STABILIZER
6	02980667	1	WLDMT FRONT MOUNT L.H. TS-A
7	02980668	1	WLDMT FRONT MOUNT R.H. TS-A
8	02980719	1	ASSY, TS-A PUMP MOUNT W/COVER
9	02980694	1	PLATE, BOOM REST STABILIZER
12	02980714	1	KIT JOYSTICK SEAT MOUNT
13	02753400	3	PLASTIC TIE-ON 15 LG
14	02966874	1	BOOT,CABLE
15	000859	2	TIE,PLASTIC
16	00763977	1	DECAL,NOTICE TO OWNER
17	02775500	10	PLASTIC TIE 21 LG.
18	02963524	1	DECAL:ATTENTION-BOOM SWINGING
19	02964677	1	DECAL,BOOM REST
20	02965093	1	DECAL-PROPER ENGINE OPERATING
21	02965262	1	DECAL- WARNING HOSE BURST
22	02967827	1	DECAL-MULTI HAZ
23	63118700	5	3/16X 7 PLASTIC TIE WRAP
25	02969509	1	ADAPTER, HYD ELBOW 12MM - 4MJ - 90 DEG

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Mounting Specifications

New Holland TS115A/125A/135A Cab/2&4wd

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Item	Part No.	Qty	Description
26	02969508	1	ADAPTER HYD, STRAIGHT 22MM - 10MJ
27	02969401	1	ADAPTER HYD, ELBOW 10FJX - 8MJ 90
28	02975000	1	ADAPTER HYD, STRAIGHT 12MJ - 27MM
29	02980817	1	ADAPTER HYD, 12FJX - 8MJ 90
30	02969418	1	HOSE #16 - 16FJX -16FJX - 66" LG
31	02969419	1	HOSE #16 - 16FJX -16FJX - 66" LG
32	02969420	1	HOSE #16 - 16FJX -16FJX - 62" LG
33	02976714	1	HOSE # 8 - 8FJX - 8FJX - 190" LG
34	02976719	1	HOSE # 8 - 8FJX - 8FJX90 - 190" LG
38	02976726	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
39	02976727	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
42	02976730	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
43	02976731	1	HOSE # 6 - 6FJX - 6MJ - 70" LG
46	02980805	1	RAIL, TANK LH
47	02980807	1	WLDMT. RH TANK RAIL TS100A
48	02980916	1	KIT, EXHAUST RELOCATION TS115A
49	02980963	1	BOLT BAG, NH TS115A MACHETE
50	02977901	1	HOSE # 6 - 6FJX - 6MJ - 56" LG
51	02977902	1	HOSE # 6 - 6FJX - 6MP - 56" LG
52	02977903	1	HOSE # 6 - 6FJX - 6MP - 76" LG
53	02977904	1	HOSE # 6 - 6FJX - 6MP - 76LG
54	02976742	1	HOSE # 4 - 4FJX - 4MJ - 76" LG
55	02976743	1	HOSE # 4 - 4FJX - 4MJ - 76" LG
56	02981008	1	HOSE # 4 - 4FJX - 4FJX -190" LG
57	02981048	1	MANUAL,INST NEW HOLLAND TS-A
58	02981129	1	KIT, HYDRAULIC CONNECTION
59	02982000	1	DRIVELINE, MODIFIED 02975257A

Component Box P/N 02980903 is in Mount Kit P/N 02980902

02980963 Bolt Bag: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02918600	8	BOLT, HEX HEAD 3/4"-10UNC X 2" PL GR8
2	00037200	17	LOCKNUT, TOPLOCK 3/4"-NC
4	02975692	12	BOLT, HEX HEAD M20-P2.5 X 50MM PL GR10.9
5	02971158	12	LOCKWASHER, 20MM
7	00001300	6	LOCKWASHER, 1/2"
8	02976344	4	BOLT, HEX HEAD 7/16"-NC X 1-1/4" PL GR8
9	00022200	4	LOCKWASHER, 7/16" PL
10	02980967	4	BOLT, HEX HEAD M12-P1.75 X 60mm PL GR10.9
11	00754566	4	LOCKWASHER, 12MM

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Mounting Specifications

New Holland TS115A/125A/135A Cab/2&4wd

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Item	Part No.	Qty	Description
12	02980721	2	BOLT, HEX HEAD 1"-8UNC X 10-1/2" PL GR8
13	02980722	2	BOLT, HEX HEAD 1"-8UNC X 11-1/2 PL GR8
14	00059500	4	NUT, HEX 1"-NC PL
15	02032200	4	LOCKWASHER, STD 1"
16	02959587	2	BOLT, HEX HEAD, 3/4"-10 NC X 6" PL GR8
18	5312316	10	WASHER, 3/4" HARDENED
19	02980723	4	BOLT, HEX HEAD M18-P1.5 X 80 mm PL GR10.9
20	02975957	4	BOLT, HEX HEAD M18-P1.5 X 100MM PL GR10.9
21	02970066	8	LOCKWASHER, 18MM
22	02956765	4	BOLT, HEX HEAD 1/2"-NC X 4-1/2" PL GR8
23	00002700	8	FLATWASHER, STD 1/2" PL
24	00001200	4	NUT, HEX 1/2"-NC PL
25	02980730	4	BOLT, HEX HEAD 3/4"-10 NC X 4-1/4" PL GR8
26	02962777	2	BOLT, SOCKET HEAD 3/4"-NC X 11" PL GR8
27	02963646	1	BOLT, HEX HEAD 3/4"-NC X 2-1/2" PL GR8
28	02776600	2	BOLT, HEX HEAD 1/2"-NC
29	00759635	2	FLATWASHER, HARDENED 1/2" NON-PLTD
30	02976387	6	BOLT, HEX HEAD 5/8"-NC X 1-1/2" PL GR8
31	00010300	6	LOCKWASHER, 5/8"

Bolt Bag P/N 02980963 is in Component Box P/N 02980903 which is in Mount Kit P/N 02980902

02980916 Exhaust Relocation Kit: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02980917	1	PIPE, EXHAUST NH TS115A
2	02980728	3	BOLT, HEX HEAD, M12-P1.75 X 30mm PL GR10.9
3	701513C	3	FLATWASHER, 12 MM
4	00754566	3	LOCKWASHER, 12MM
5	02980933	1	EXHAUST bRACKET WELDMENT
6	02959132	2	CLAMP, 3-1/2" HD MUFFLER CLAMP

Exhaust Relocation Kit P/N 02980916 is in Component Box P/N 02980903 which is in Mount Kit P/N 02980902

Mounting Specifications

New Holland TS115A/125A/135A Cab/2&4wd

02980714 Joystick Seat Mount Kit: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02980715	1	WELDMENT, JOYSTICK STAND - SEAT MOUNT
2	00011700	1	LOCKWASHER, 5/16" PL STD
3	00011400	2	BOLT HEX 3/8"-NC X 1"
4	00012101	2	LOCKWASHER, 3/8" PL
5	00011100	2	FLATWASHER, STD 3/8"
6	02980635	1	DRAWING, INSTALL SEAT MOUNT JOYSTICK
7	00753723	1	BOLT, HEX HEAD M8-P1.25 X 25mm

Joystick Seat Mount Kit P/N 02980714 is in Component Box P/N 02980903 which is in Mount Kit P/N 02980902

02980719 Pump Mount Kit w/Cover: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02980666	1	WLDMT PUMP MOUNT TS-A
2	02980398	1	COVER, DRIVE LINE
3	00021400	4	BOLT, HEX HEAD 1/4"- NC X 3/4" PL GR5
4	00024100	4	FLATWASHER, STD 1/4 " PL
5	00017000	4	LOCKWASHER, 1/4" PL ST

Pump Mount Kit P/N 02980719 is in Component Box P/N 02980903 which is in Mount Kit P/N 0298902

02981129 Hydraulic Connection Kit: Consist of the following Item No.

Item	Part No.	Qty	Description
1	02981117	1	ADAPTER HYD, TEE 8FFX-8MF-8MF
2	02981118	1	ADAPTER, HYD STRAIGHT 8FFX-8MF
3	02981128	1	HOSE, #8 8FJX - 8FJX - 7LG
4	02967151	1	ADAPTER, HYD STRAIGHT
5	02981071	1	HOSE #4 - 4FJX - 4FJX -72"
6	00753723	2	BOLT, HEX HEAD M8-P1.25 X 25mm
7	02970065	2	LOCKWASHER, 8mm
8	02974929	2	WASHER 8mm
9	02981132	1	VALVE BODY MOUNTING. PLATE ASY
10	02981131	1	INSERT SHEET NH TSA

Hydraulic Connection Kit P/N 02981129 is in Component Box P/N 02980903 which is in Mount Kit P/N 02980902

NOTES

Section 2

Machete

Tractor Preparation

New Holland Tractor TS-100A, 115A, 125A & 115A

Tractor Preparations

GENERAL INFORMATION:

The tools you will need at the assembly site are as follows:

1. Impact wrench or socket and ratchet set.
 2. Rubber mallet.
 3. Box-end, Allen, and adjustable wrenches.
 4. Alignment pins.
 5. Forklift or hydraulic floor jacks with rolling back boards.
 6. Small chain hoist or block-and-tackle.
 7. Multidirectional Levels.
 8. Hydraulic Filter Buggy or Cart.
 9. Safety shoes, safety glasses, and gloves.
- A hard hat should be worn by anyone working under any raised component.

Remember to follow each step closely and cautiously. Be aware of all support personnel at all times. Keep the assembly area as clean as possible; clean up all spills when they occur. An uncluttered assembly area and a crew that is sensitive to the hazards involved in putting this implement together will help prevent accidents. Keep all unauthorized personnel from the area. Do not allow children near the assembly site nor allow them on or near the tractor after assembly. There is no safe place for anyone except the operator on the tractor and those assisting with the assembly.

To help you assemble your new Machete Boom and mount it to your tractor, a detailed assembly instruction Manual is being provided with the mount kit to provide detailed instructions and part numbers. Please consult this document for specific information. When needed, you can get additional information or clarification from Your Dealer or Alamo Group Customer Service.

This publication provides general information not specifically for your case or tractor, but, in connection with the drawings, this publication offers you some valuable assistance - please read it thoroughly.

These mount kits are made for selected tractors with standard configurations. Only the noted options and tire sizes listed in the Mounting Specifications will work with these mount kits. Other options, front axles, or different tire sizes may prevent the mount kit from fitting your nonstandard tractor. Alamo Group cannot take responsibility for these problems or any modifications made to the unit.

Throughout these instructions, references are made to right or left directions. Right and left are determined by sitting on the tractor seat and facing the direction of travel forward always.



This is the Safety-Alert symbol. When you see this symbol on your machine or in these instructions, be alert to the potential for personal injury. Follow recommended precautions and safe operating practices.

DANGER!



A signal word - **DANGER**, **WARNING**, or **CAUTION** - is used with the Safety Alert symbol. **DANGER** identifies the most serious hazards.

Tractor Preparations

WARNING!

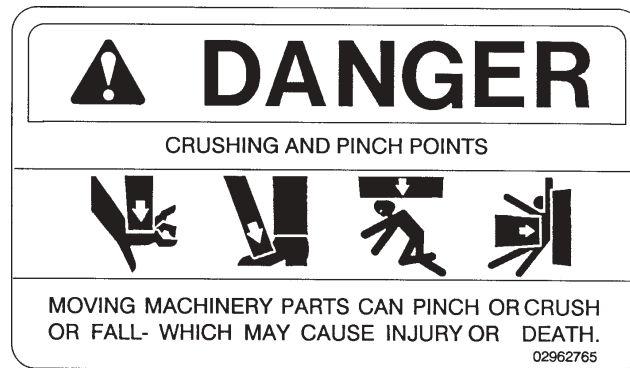


Safety signs with signal word **WARNING** are typically used to point out more serious hazards.

CAUTION!



General precautions are listed on **CAUTION** safety sign. **CAUTION** also calls attention to safety messages in these instructions.



GENERAL INFORMATION

The tools you will need at the assembly site are as follows:

1. Welding equipment (including correct head gear, eye shields, and protective clothing.)
2. Impact wrench or socket and ratchet set.
3. Rubber mallet.
4. Box-end, Allen, and crescent wrenches.
5. Alignment pins.
6. Phillips and plain-head screwdrivers.
7. Forklift or hydraulic floor jacks with rolling back boards.
8. Small chain hoist or block-and-tackle.
9. Multidirectional Levels.
10. Paint Scraper.
11. Hydraulic Filter Buggy or Cart.
12. Safety shoes, safety glasses, and gloves. A hard hat should be worn by anyone working under any raised component.

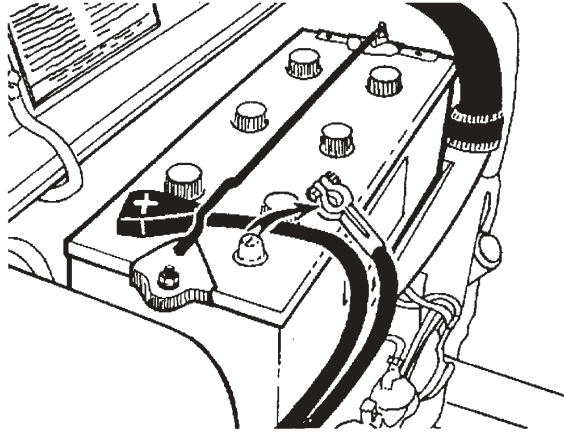
Remember to follow each step closely and cautiously. Be aware of all support personnel at all times. Keep the assembly area as clean as possible; clean up all spills when they occur. An uncluttered assembly area and a crew that is sensitive to the hazards involved in putting this implement together will help prevent accidents. Keep all unauthorized personnel from the area. Do not allow children near the assembly site nor allow them on or near the tractor after assembly. There is no safe place for anyone except the operator on the tractor and those assisting with the assembly.

Tractor Preparations

WARNING!



Disconnect the negative lead (ground) from the battery terminal to prevent any damage to the electrical system.



LEVELING TRACTOR:

TRACTOR MUST be on level ground before assembly is begun. The tractor must be level, All tires must have the proper amount of air in them as per tire and/or Tractors manufactures recommendations.

DO NOT level tractor by over inflating tires. The tractor can be leveled by jacking it up and putting it on jack stands if needed.

Replacement Oil Filter

Included in the packing box of this unit is a replacement filter element for filter assembly in the tank. This Mower unit's hydraulic components have been carefully cleaned and packaged at the factory to prevent contamination from entering the system. However, dust and dirt particles may enter into the sealed components through transportation, handling, rain, or just sitting in a dirty or harsh environment. Therefore to assure that the hydraulic system is properly clean, please prepare the area where the unit is to be assembled. The area should be on a hard concrete floor that has been swept clean of all dust and contaminants. Unpacked the Mower unit carefully so that the seals on the hydraulic components are not broken or pulled off.

WARNING!



Before attempting to assemble the mower to the tractor, move the tractor to a clean solid surface, preferably a concrete shop surface with an over head crane. The crane should have a rated capacity to lift the heaviest component or assembly. A 5-ton crane is recommended for the assembly work. If a smaller crane is used, be sure not to exceed the rated capacity of the crane.

- Always follow all OSHA crane operating and inspection rules, regulations, inspection requirements, and recommended practices when using the crane.
- Never work under any component that is lifted by the crane.

Tractor Preparations

WARNING! Wear personal protective equipment when assembling the mower. As a minimum that should include:



- Safety Glasses
- Hard Hat

- Safety Shoes
- Hearing Protection

- Gloves
- Welding Helmet

WARNING!

Before attempting to assemble ensure that the tractor engine is off and the tractor transmission is in the park position with the parking brake engaged.



- Remove the engine key and keep it in your pocket to prevent inadvertent starting or movement of the tractor.
- Place wheel blocks in front and behind the tractor wheels to prevent the tractor from moving.
- Never attempt to start the tractor unless properly seated in the tractor seat with the seat belt fastened around you.
- Never attempt to operate the tractor and mower controls unless seated in the tractor seat with the seat belt fastened around you.

WARNING!

Securely block up and support the tractor before attempting to loosen and move the tires. Failure to properly block up the tractor can result in the tractor to suddenly move or fall, crushing you or another worker.



- Never work under any raised component or any component that is not securely blocked up or supported.

WARNING!

Many components of this mower are very heavy and must be handled by proper material handling equipment. Do not lift components that weight over 50lbs by yourself.



- Use an overhead crane, forklift, or other coworkers to lift heavy items. Ensure lifted components are securely supported.
- Never walk or work under a lifted component.

WARNING!

Use extreme care when moving, handling or adjusting the tractor tires. The tires are extremely heavy and could fall and crush you



- Use an overhead crane or forklift to move the tires.
- Properly fasten the tires to the material handling equipment to prevent the tire from falling.

WARNING!

The hydraulic oil is under high pressure and a hydraulik leak can cause oil to be injected under the skin.



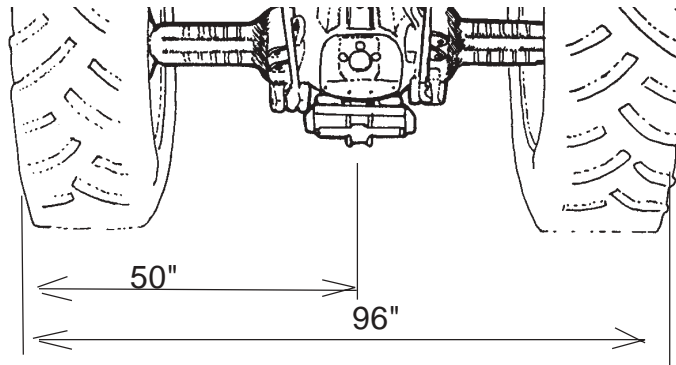
- Before starting the tractor ensure all hydraulic connections have been tightened
- Never check for leaks with your hands. Use a piece of wood or cardboard to check for the leak making sure your hands and face are kept away from the leak area.
- Repair any leaks before operating the equipments
- Clean up all oil that has leaked according to the requirements of the oil supplier. Oil residue on the ground can result in injury from slipping or falling.

Tractor Preparations

TRACTOR PREPARATION (FIGURE 1 & 2)

1. Temporally remove ROPS and fenders from tractor axle. Move left rear tire out so that it is 50 inches from the outside of left rear tire to the center of tractor. Then move the right rear tire out so that it is 96 inches between the outside of the left and right rear tires. Refer to your tractor's Operator's Manual for instructions on Rear Wheel Adjustment for your particular tire. **FIGURE 1.** Hydraflate rear left tire as much as needed for stability but stay in factory-recommend limit.

FIGURE 1

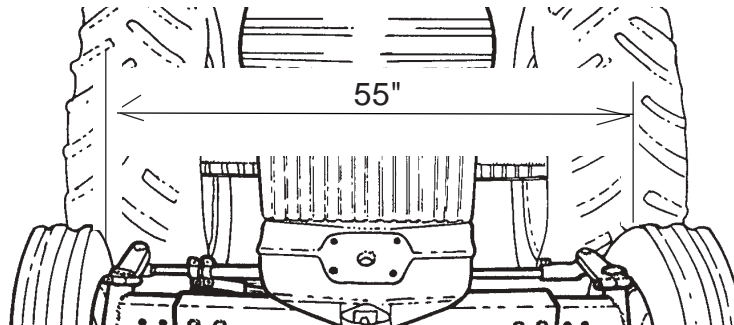


WARNING: Never operate the tractor with a loose wheel rim or disc. Always tighten nuts to the specified torque and at the recommended intervals.



2. Extend front wheels out so that it is 55" inches between the inside of the tires. This will allow no interference between tire and front mount bracket. **FIGURE 2.**

FIGURE 2



Tractor, Area Cleanliness

The Tractor, all tools and work area must be clean of dirt and debris when assembling any hydraulic components. DO NOT leave any hydraulic component open to the elements. DO not use any containers for fluids that are not clean and free of any other liquids. DO NOT use rags/cloth that has lint or fuzz on them when working on hydraulic components. Keep all hoses capped until you are ready to connect them.

Mount Kit Component Preparations

Lay Out Components in Display. It is helpful to lay out the component in as neat a display as possible. Lay out the Bolts according to size and length. Lay out the Nuts and washer by size. This will allow you to see how many of each part as you use them and help to identify any missing parts. (See figure 6) See Mount Kit Specification and Component Identification Section to help ID Components. **All the component that are received should be check and sorted as to what they are.**



HOSE END FITTING TORQUE SPECS:

Hose End Type: 37 Degree Angle End Steel Hose End Fittings*

Dash Size	Nominal Cyl. Size (in.)	Torque in. lbs.	Torque ft .lbs.
-4	1/4"	140	12
-6	3/8"	230	19
-8	1/2"	450	38
-10	5/8"	650	54
-12	3/4"	900	75
-16	1"	1200	100
-20	1-1/4"	1600	133
-24	1-1/2"	2000	167
-32	2"	2800	233

* Straight Threads do not always seal better when higher torques are used. Too much torque causes distortion and may lead to leakage. DO NOT over torque fittings and DO NOT allow any contaminants to enter system through fittings when installing them.

Bolt & Hose Fitting Torque Charts




Special Torque Specifications (Rotary Heads)

Motor to Spindle Housing.....	100 ft. lbs.
Spindle to Deck.....	425 ft. lbs.
Spindle to Adjusting Nut (Bearing Preload).....	25 in. lbs. Rolling Torque
Blade Bar Leaf Bolts Old Style 7/8" Bolts.....	600 ft. lbs.
New Style 1-1/4" Bolts.....	2000 ft. lbs.
Blade Bar to Spindle Bolts.....	400 ft. lbs.
Blade Bolts.....	400 ft. lbs.
Motor Plate.....	See Set Up Instructions

TORQUE VALUES - BOLTS: Recommended Torque, Ft. lbs. & (Nm)




IMPORTANT! Listed below IS BOLT TORQUE and NOT APPLICATION TORQUE, Component Application Torque will vary depending on what is bolted down and the type material (Metal) that is being bolted together. Thread condition and lubrication will vary Torque settings.

Inche Sizes

Bolt Dia. inch	2 (B) 	5 (D) 	8 (F) 
	Plain Head	3 Dashes	6 Dashes
1/4	Not Used	10 (14)	14 (19)
5/16	Not Used	20 (27)	30 (41)
3/8	Not Used	35 (47)	50 (68)
7/16	35 (47)	55 (75)	80 (108)
1/2	55 (75)	85 (115)	120 (163)
9/16	75 (102)	130 (176)	175 (230)
5/8	105 (142)	170 (230)	240 (325)
3/4	185 (251)	300 (407)	425 (576)
7/8	160 (217)	445 (603)	685 (929)
1	250 (339)	670 (908)	1030 (1396)
1-1/8	330 (447)	910 (1234)	1460 (1979)
1-1/4	480 (651)	1250 (1695)	2060 (2793)

**ALWAYS
CHECK
MARKINGS
ON
TOP
OF
BOLT
HEAD
OR
OTHER
BOLT
DESCRIP-
TIONS**

Metric Sizes

Bolt Dia. mm			
6	5	7	12
8	11	20	25
10	20	40	58
12	37	70	105
14	60	100	140
16	92	155	200
18	118	216	280
20	160	270	355
22	215	330	430
24	285	500	700
27	450	875	1000
30	600	1200	1700
33	800	1600	2300
36	900	2100	3000

Section 3

MACHETE

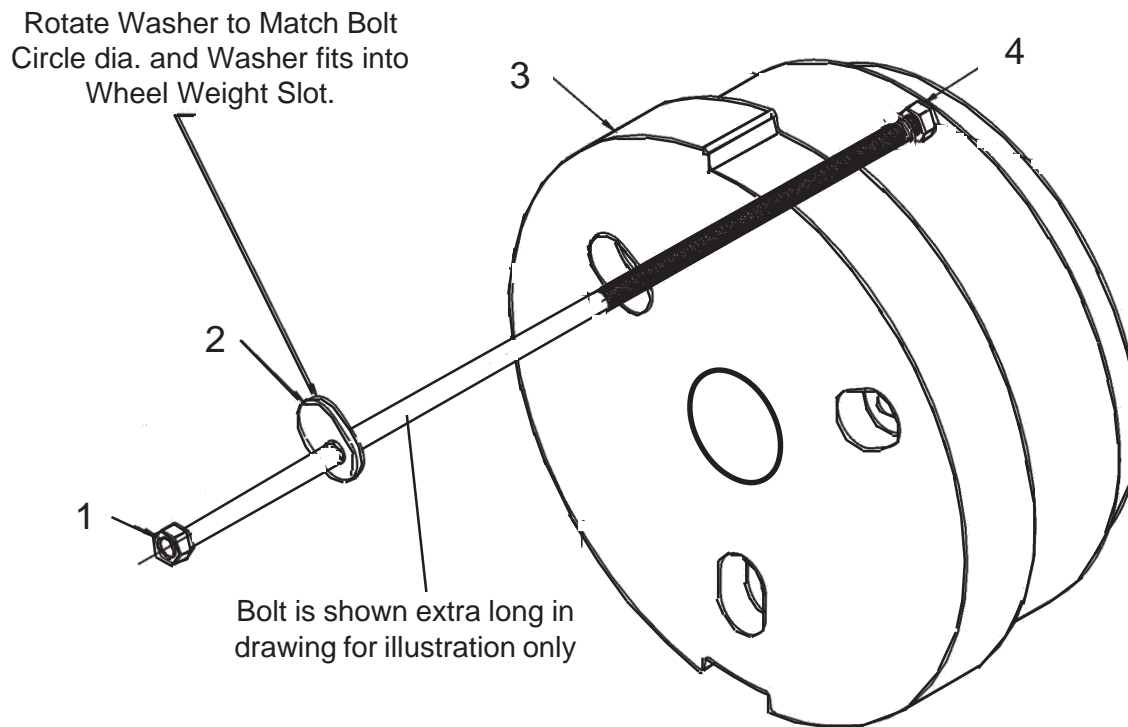
New Holland Tractor TS-100A, 115A, 125A & 135A

Wheel Weight Installation

Rear Wheel Counter Weight

Fill Left Rear Wheel with Liquid:

The Left Rear Wheel must be filled with liquid. Alamo Industrial recommends a Calcium Chloride Water Mixture. The recommended Ratio of a 30 / 70 mix (30% Calcium Chloride and 70% Water), this mixture will add weight at about 10.5 lbs per gallon. Follow the Mixture procedures furnished by the Manufacturer of the Brand of Calcium Chloride that you are using. It is also recommended that a trained person installs the calcium Chloride. Calcium Chloride must be added in addition to the Steel Wheel Weight and the Counter Weight that hangs on the Left Side. It is Not recommended to use straight Water in the Wheel as this would not provide protection against freezing. A 30/70 Calcium Chloride Water mixture provides antifreeze to approx -50 deg. F. below 0.



Item	Part No.	Qty	Description
1	02979603	3	Hex Head Bolt, 7/8" NC X 16"
2	02971569	3	Wheel Weight Washer, Special
3	02970758	1	Wheel Weight Casting, 1400 lbs.
4	5JRC1490	3	Locknut, Top Lock 7/8" NC

Note: some Older Units used a All Thread Rod with Hex Nuts Lock Nuts, with Flat Washer and Lock washer. This was replaced with the Bolt Type shown above. These Bolt and Nut combinations will replace the old All Thread type.

Figure 1

Rear Wheel Counter Weight

Installing Wheel Weight

1. This Wheel Weight is 1400 lbs. Always use caution when working with it.
2. Locate the three Holes in LH Rear Wheel. Make sure these holes are 15/16" dia. if not, they must be reamed out.
3. Lift Left Rear Tractor Wheel till it just clears the ground. This will allow the Wheel to be rotated when aligning mounting holes for Weight.
4. Using a forklift, lift Wheel Weight into Wheel. When Wheel Weight is centered in Wheel Secure Forklift and Set Parking Brake on Forklift. Insert one of the three bolts through Weight and Wheel (Rotate Wheel to align holes if needed). Install a Hex Lock Nut on inside. Insert the other two Bolts through Weight and Wheel and start the other two Locknuts. Do not tighten yet. **(See Figure 2)**



Figure 2

5. Looking at the outside make sure the three special Washers (**Figure 1 Item 2**) are aligned with the Slots in the Wheel Weight. Tighten the three Bolts now. You will need an assistant to hold the other Side while you are tightening the Bolts. While tightening Bolts, check to make sure the three special washers are seated correctly. If these Bolts are tightened and washer are not seated into the recess on Wheel Weight, damage will occur. **(See Figure 3)**
6. Remove forklift away from Wheel and Weight. Recheck tightness of Wheel Weight retaining Bolts. Bolts should torque to 500 ft. lbs.

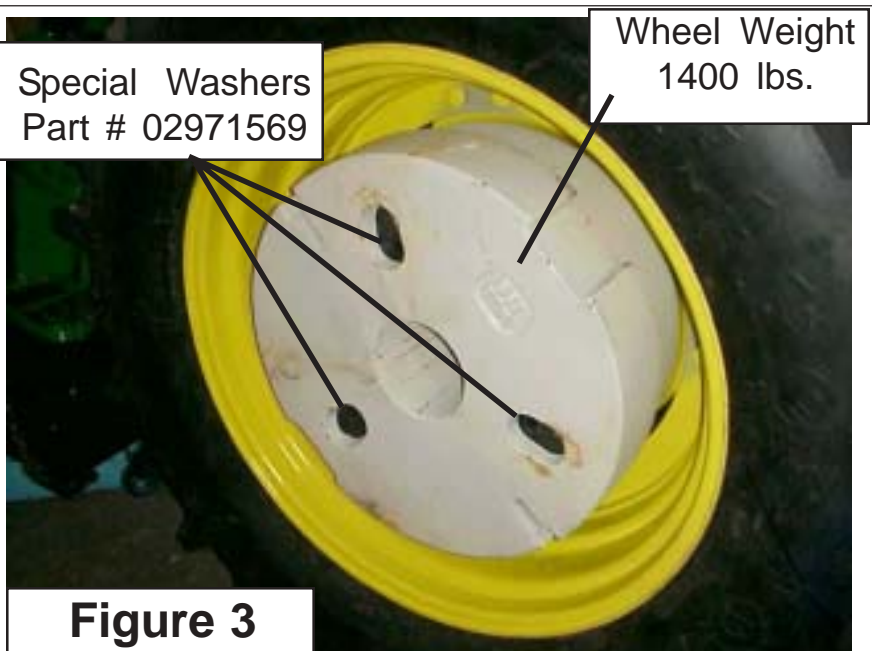


Figure 3

NOTES

Section 4

MACHETE

New Holland Tractor TS-100A, 115A, 125A & 115A

Front Pump & Drive Shaft Installation

Pump / Drive Assembly Instructions

Installing Pump, Pump Drive Components and Hydraulic Tank:

This Section covers the installation of Pump Drive Components, Pump Assembly and the Hydraulic Tank. Some precautions must be followed during the Assembly Process and before unit is ever started for the first time.

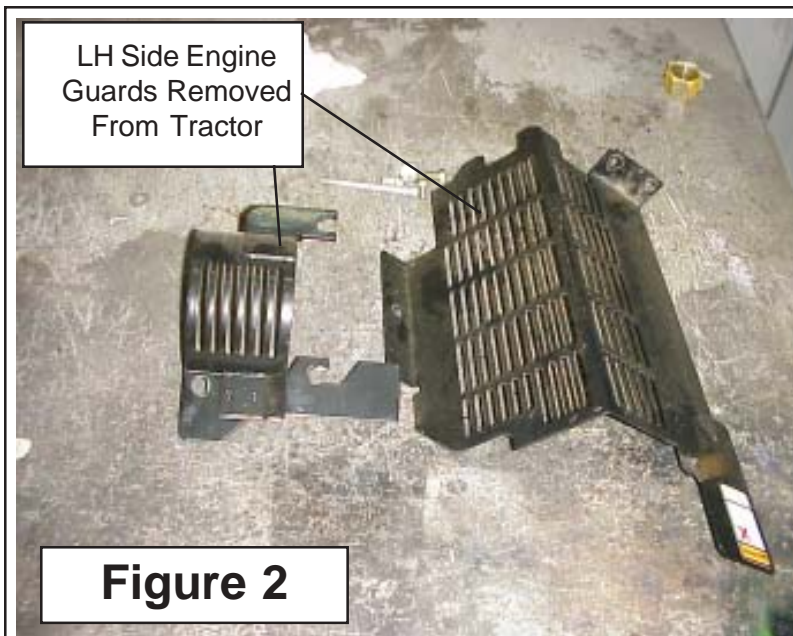
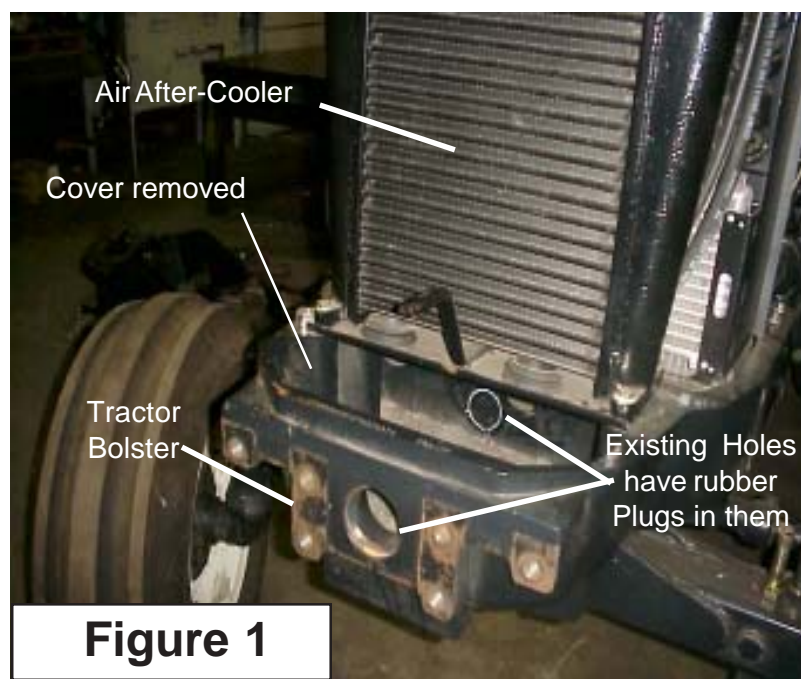
1. Tractor must be disabled to prevent accidental engine start and prevent damage to components.
2. All Fittings, Hose, Cylinders, Tank must be kept plugged at all times, No part of the Hydraulic System can be left open at any time during mounting process, this will keep system clean.
3. All Tools, Work Area, Components and Workers Hands must remain Clean when working on any part of the Hydraulic System.
4. All components should be rechecked for tightness at least twice, Hose routing also double checked.

Preparing Tractor Front Plate (Bolster) to Slide Driveline in From Engine Side :

1. Preparing Tractor. On the Left side of Tractor there are some engine protective shields that will have to be removed to install pulley adapter and driveshaft half (See Figure 2). The shaft half of driveline will have to be slid down and through the bolster from the engine side of radiator. The driveshaft has to slide in from the engine side because the hole (2 holes) in bolster are too small for driveline flange yoke to slide through. There is a plate that is bolted under the After Cooler that will have to be removed to gain access to inner hole, when the four bolts that retain after-cooler are removed the plate will slide out. While this plate is out check the hoses for the Oil Cooler and Air Conditioning condenser, these hoses need to be tied up in such a way that they will not rub on driveshaft after it has been installed.

Installing Pump Drive Components:

1. With Front Bolster as shown (See Figure 1), Remove any plastic plugs that are located in the threaded holes in the front and discard them, they will not be needed. The Casting will have two Driveline Hole in it. (See Figure 1).



Pump / Drive Assembly Instructions

Installing Crankshaft Pulley Adapter:

1. Install Pulley Adapter. The Pulley adapter (P/N 02980699) is a round plate with 4 threaded holes and four non-threaded holes in it. Notice this pulley adapter will not have a center hole in it (**See Figure 3**). The four non-threaded holes are used to mount the Adapter to the Crankshaft Pulley using bolts (P/N 02980967) 12 mm X 60 mm long and lockwashers (P/N 00754566) 12 mm that are supplied in mount kit. The four threaded holes are used to install the flange yoke of driveline to pulley adapter. Do not use longer bolts to mount Pulley Adapter to Pulley or Flange yoke to adapter than are supplied with mounting kit, if longer bolts are used they could go through adapter and pulley causing damage. Tighten the four bolts that retain the pulley adapter to the pulley now, it will be easier than trying to tighten them later.

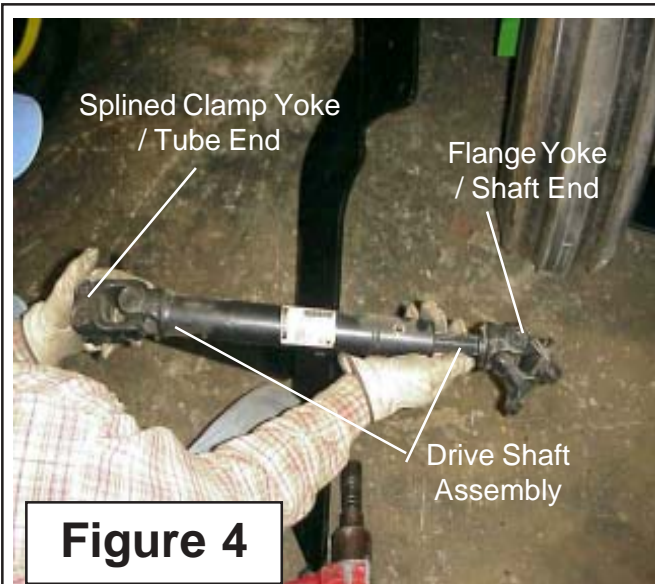
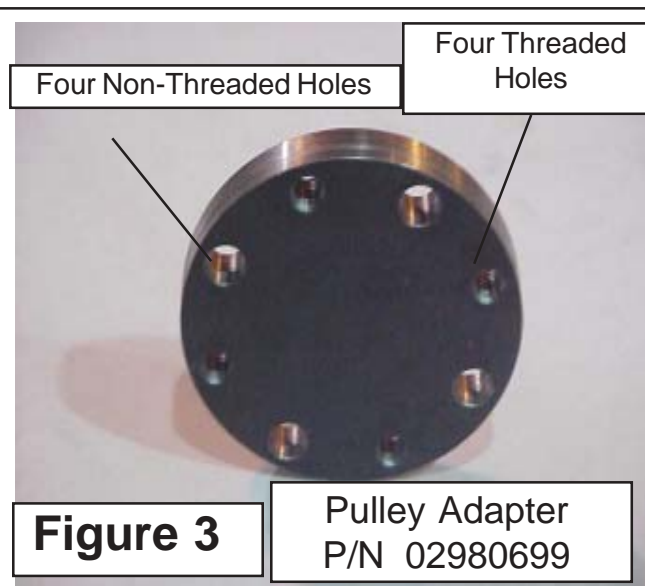
2. Install Shaft Half of Driveline with Flange Yoke. Note the driveline universal joints should be timed (See Figure 4). Slide the two driveline half assemblies apart and lay the tube half aside for now. Make certain that the four retaining bolts for the Pulley adapter to the crankshaft pulley have been tightened.

Check the length of the spline shaft of the driveline is a must. The shaft should be 12-1/2" long (Measure Shaft Only). on some drivelines this shaft will have to be cut. The correct to cut this shaft is with a saw, after cutting use a file & grinder to chamfer the cut end and clean the splines. **DO NOT cut shaft with a Torch** as this will change the hardness of the shaft.

From the side of the tractor (LH side) slide the Shaft Half of driveline shaft end first down into the opening below the radiator from engine side, insert it through the existing hole and/or cut hole combination until the shaft is pointed toward the front of the tractor, and the flange yoke is over far enough to align with the four threaded pulley adapter holes.

Align the four holes in the flange yoke of driveline with the four threaded holes in the pulley adapter. Install the four retaining 7/16" X 1-1/4" long bolts (P/N 02976344) and 7/16" lockwasher (P/N 00022200) into flange yoke into adapter, tighten them at this time. These four bolts can be tightened by using a long socket extension run through along side the driveline shaft.

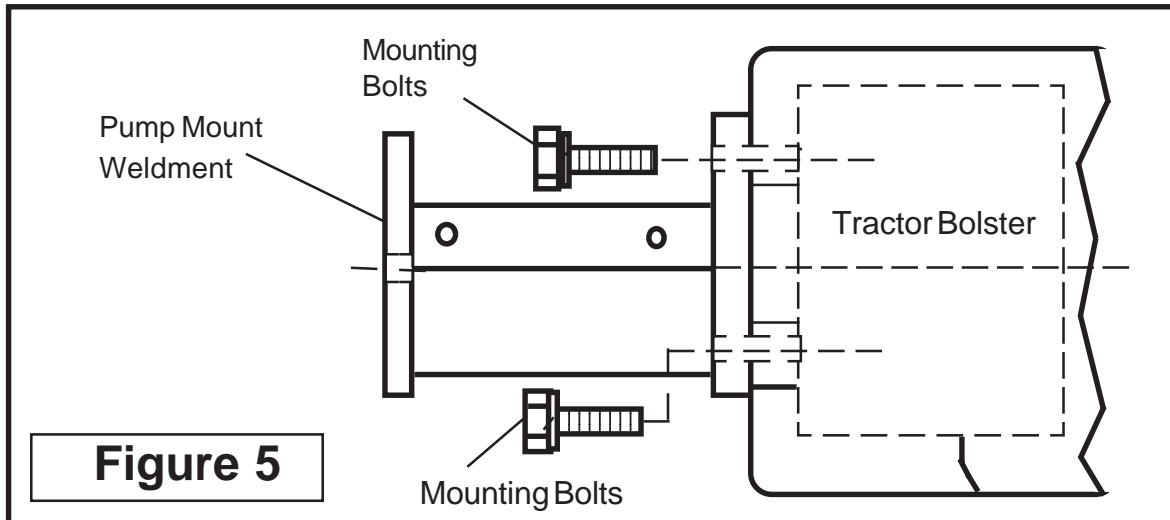
Set the tube end of driveshaft aside for now as it will be installed later. But always remember the driveline universal joint must be aligned (timed) when assembling the driveline halves.



Pump / Drive Assembly Instructions

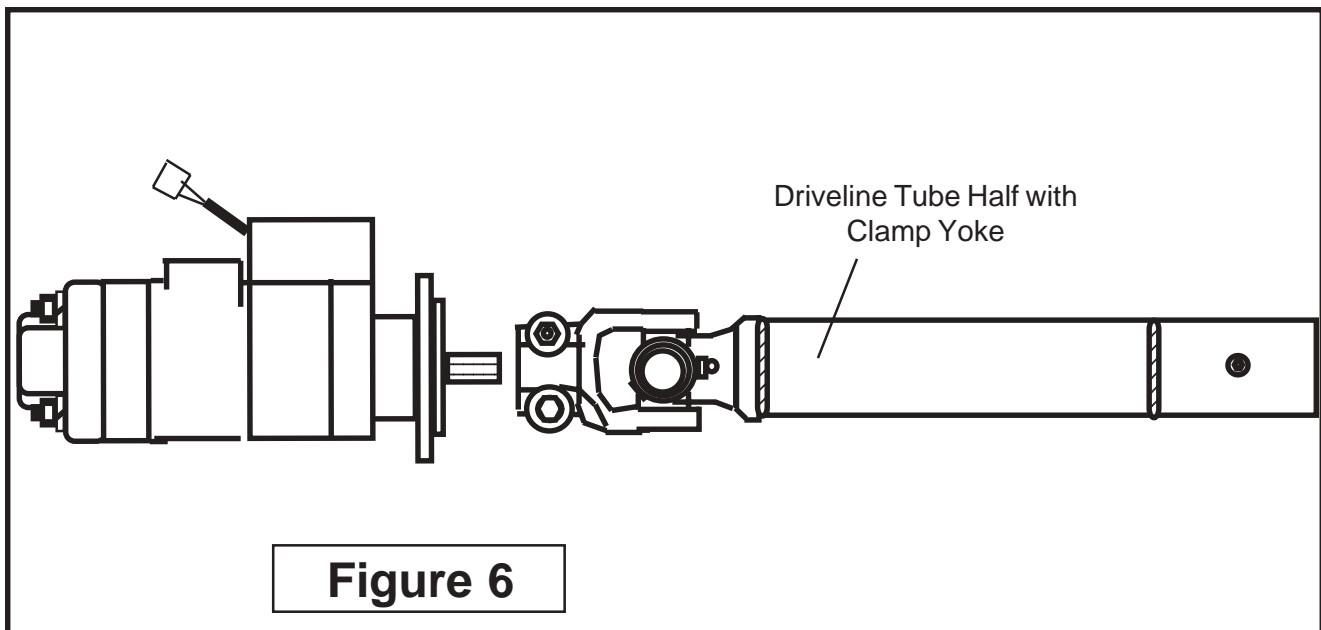
Installing Pump Mounting Weldment :

1. Install Pump Mounting Weldment. The Pump Mount Weldment (P/N 02980666) bolts to the front of the tractor bolster using four 20 mm X 45 mm long bolts (P/N 02975959) and 20 mm lockwashers (P/N 02971158) . Install the Pump Mounting Weldment (P/N 02980666) with the opening for the driveline cover up. Tighten the four mounting bolts now. (See Figure 5)



Installing Driveline Half to Pump :

1. Install Driveline Half to Pump. Install the clamp yoke of the tube half of driveline onto the pump, slide the clamp yoke on pump shaft until you have about 1/8" to 1/4" gap between yoke and pump. Do not install yoke so far on pump shaft that yoke will rub against pump in anyway. Tighten the two bolts and nuts on clamp yoke at this time. (See Figure 6)



Pump / Drive Assembly Instructions

Installing Pump to Pump Mount Weldment :

1. Install Pump to Pump Mount Weldment. The Pump has the tube half of driveline attached and clamp yoke tightened. To install the pump and driveline half it is best to use an assistant or overhead hoist to help you align the drivelines halves as they are slid together, the Driveline **must** be timed (universal joints aligned the same) as shown in the pump & driveline schematic on (See Figure 7 thru 14). Slide Driveline half and pump together until the shoulder on the pump slide in the hole on the pump mount weldment.

When installing the pump always keep ports sealed to keep them clean and free of contamination. The pump **MUST** be turned correctly. This can be done by making certain that the pressure filter that is mounted on top of the pump is up.

Install the two 1/2" X 1-1/2" long pump mount bolts (P/N 02892000) and two 1/2" lockwashers (P/N 00001300). Tighten the two pump mounting bolts.

Installing Pump Driveline Cover :

1. Install Pump Driveline Cover. The Pump Driveline will have a cover (P/N 02980398) which retained by four 1/4" X 3/4" bolts (P/N 00021400), four 1/4" flatwashers (P/N 00024100) and four 1/4" lockwashers (P/N 00017000), install and tighten these now (See Figure 6).

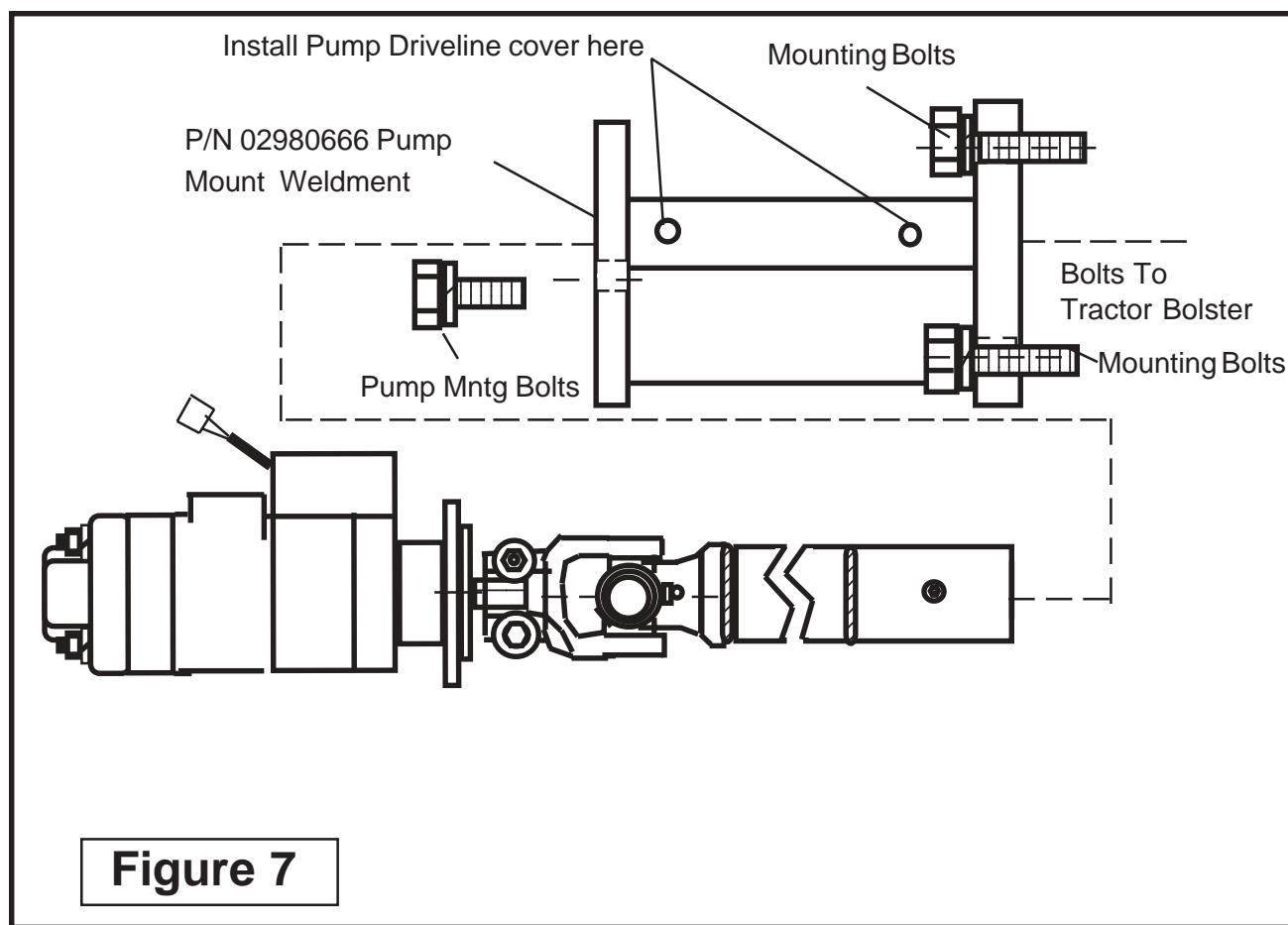
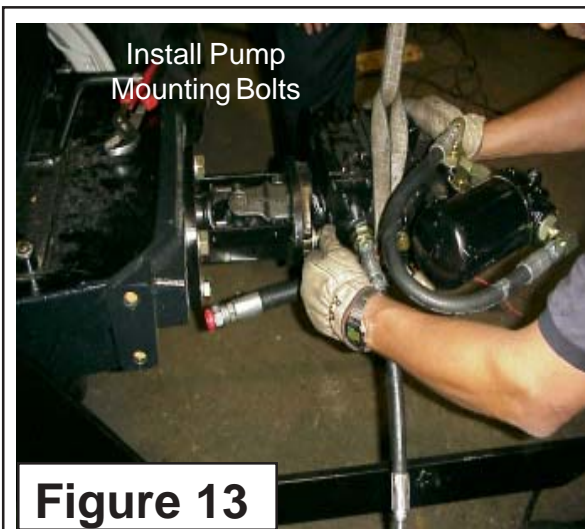
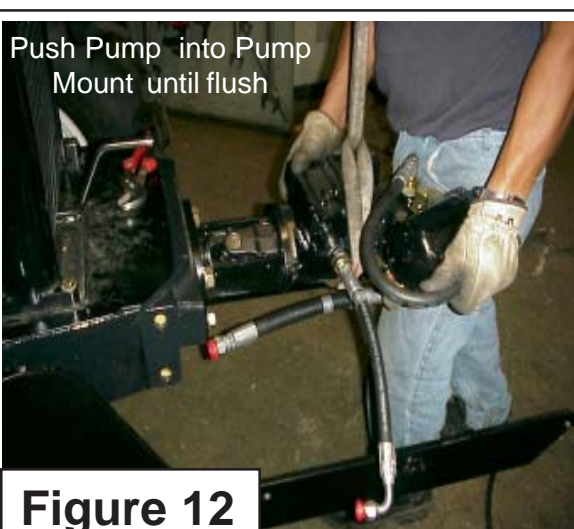
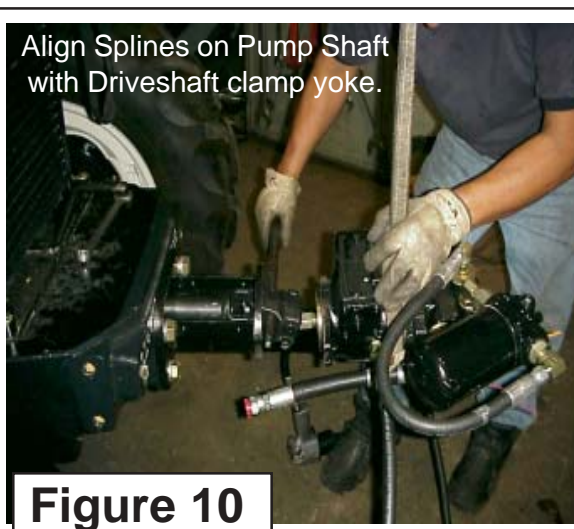
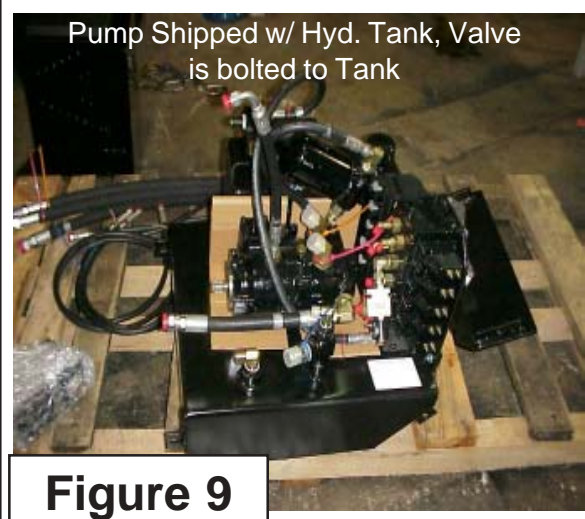
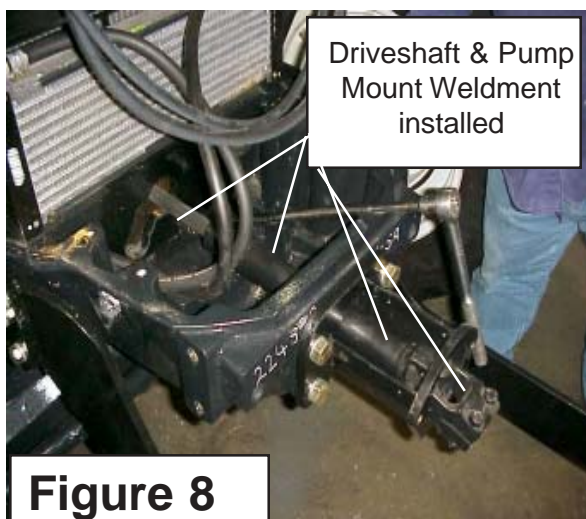


Figure 7

Pump / Drive Assembly Instructions



Pump / Drive Assembly Instructions

Pump & Driveline Schematic

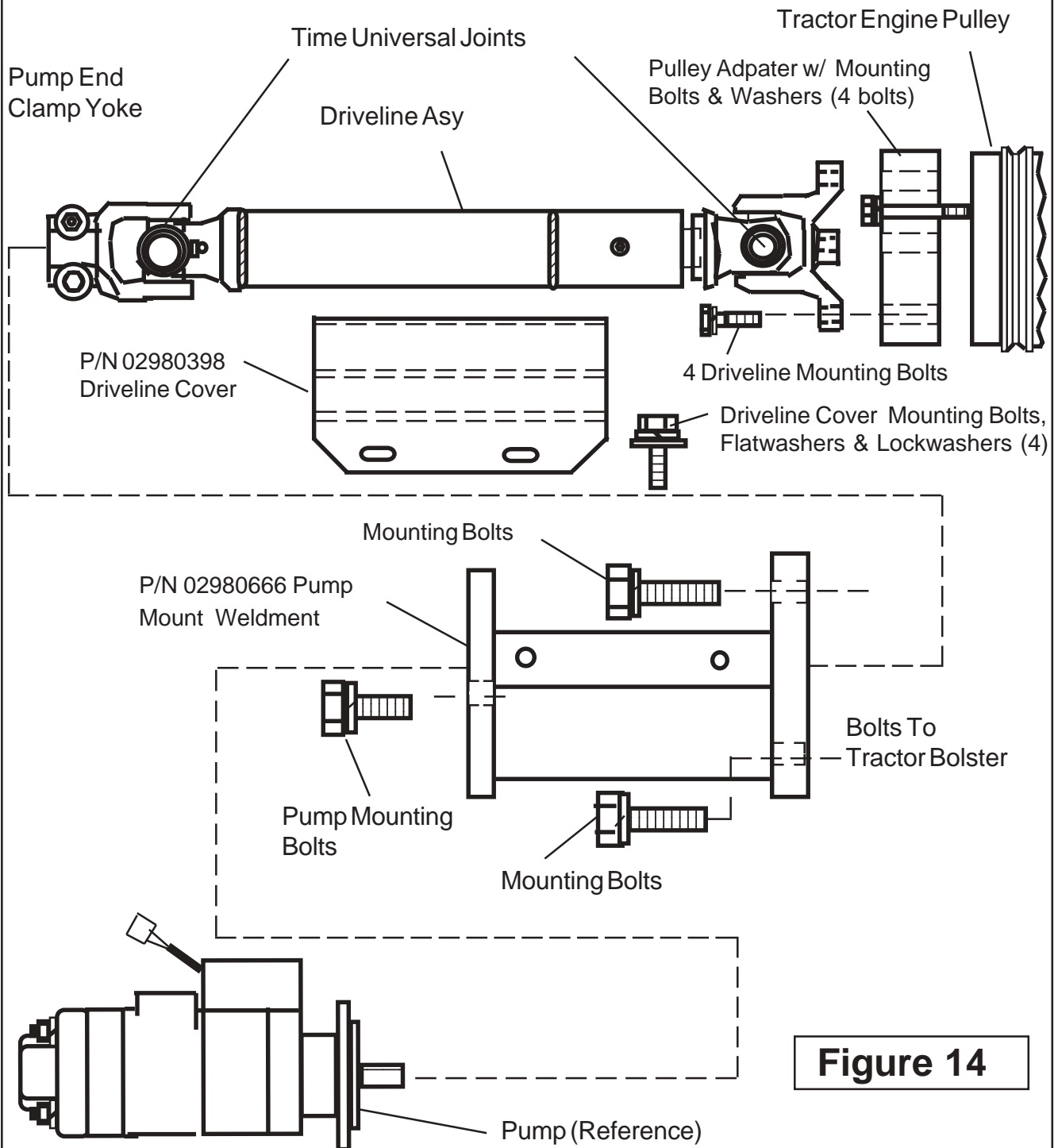


Figure 14

Pump / Drive Assembly Instructions

Install Front Frame Rail Supports:

1. Install Frame Rail Supports. P/N 02980667 LH and P/N 02980668 RH. The three bolt holes that mount the Tank rails are to the front as shown. (See figure 15 & 16). Install the frame rail support one side at a time using the four 20 mm X 50 mm bolts (P/N 02975692) and the 4 lock washers (See Figure 15 & 16). Do not tighten bolts until both sides are installed, then tighten all the bolts on both sides. There are four bolts total on each side to be tightened. Double check all these bolts.

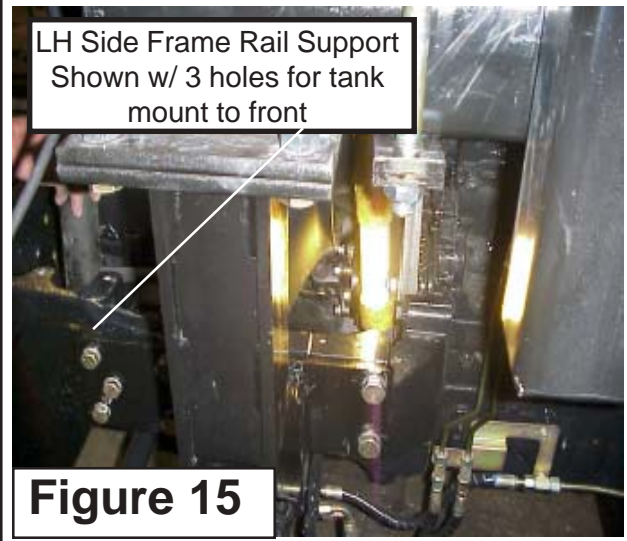


Figure 15

Install Tank Rail Weldments:

1. Install Tank Rail Weldments. P/N 02980805 LH and P/N 02980807 RH. These will bolt on using the three holes to the front of the frame rail supports. This will need to be done so the hydraulic tank can be mounted. tighten these three bolts (three each side) now. NOTE: There is a left hand and a right hand weldment, the best way to determine which is LH and RH is the welded on mount for the rubber hold down. These rubber hold downs will always be to the outside.

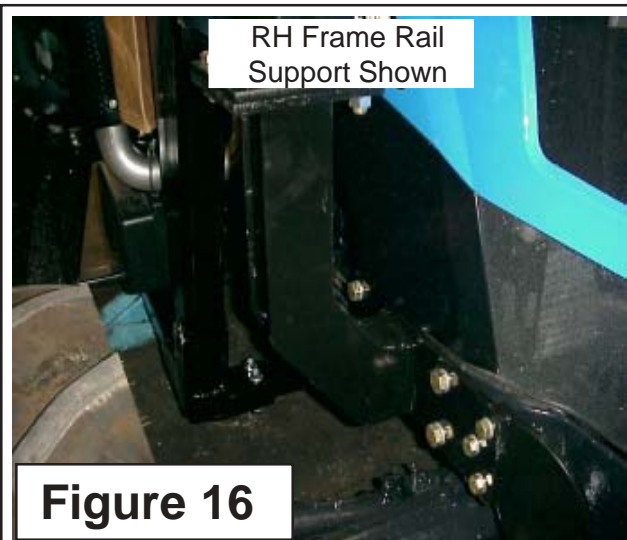


Figure 16

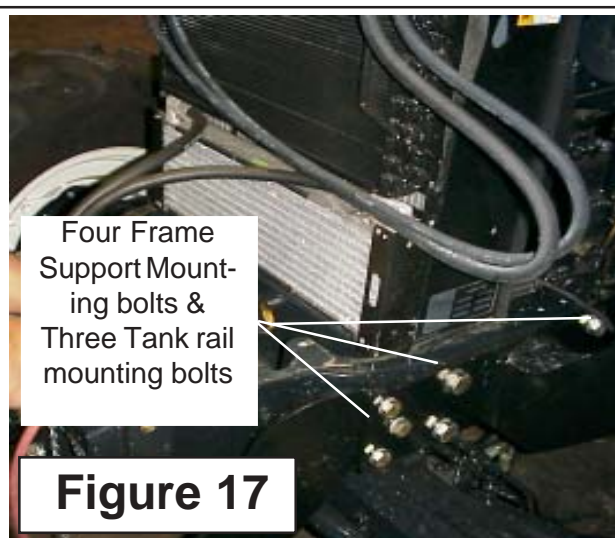


Figure 17

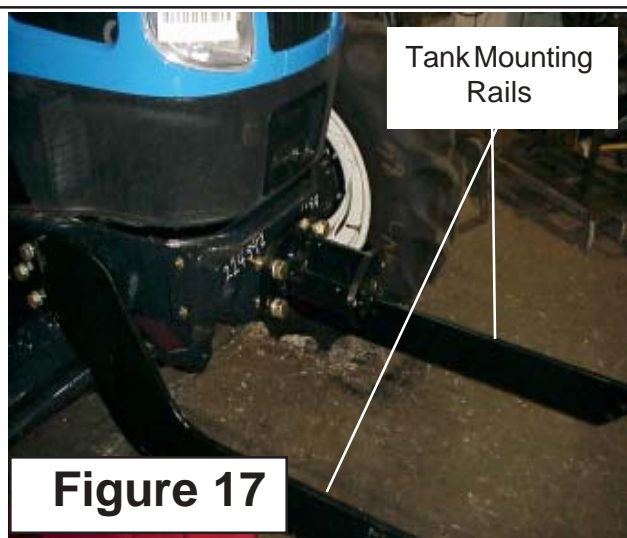


Figure 17

Section 5

MACHETE

**New Holland Tractor
TS-100A, 115A, 125A & 115A**

**Stack Valve
Connections**

Stack Valve Identification - Tractor

Tractor Hydraulic System Configurations:

There are four (4) main configurations found on North America on TS-A and MXU Tractors.

1. Fixed displacement pump with mechanical draft control and mechanical remote valves (used on models with the 12 X 12 and the 24 X 24 Transmissions). Also this is a Gear Pump. (See Figure 1 Below)
2. Variable displacement pump with mechanical draft control and mechanical remote Also this used a Piston Pump (used on models with 16 X 16 Transmission) (See Figure 2 Below)
3. Variable displacement pump with electronic draft control and mechanical remote. Also this used a Piston Pump (used on models with 16 X 16 Transmission) (See Figure 2 Below)
4. Variable displacement pump with electronic draft control and electrohydraulic remote. Also this used a Piston Pump (used on models with 16 X 16 Transmission) (See Figure 2 Below)

IMPORTANT NOTICE: Check Figure 1 & 2 below to see how the hydraulic for cylinder control valve will connect to Tractor. A kit Part # 002981129 is sent with mount kit but will not always be used. If it needs to be installed on your tractor use it if not you will have this kit left over after assembly.

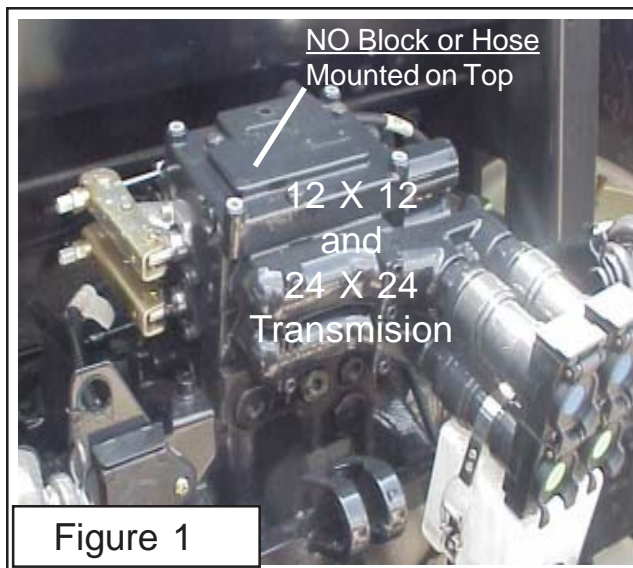


Figure 1: If your remote valve looks like this one you WILL NEED the Hydraulic Connection Kit P/N 02891129 installed to make hydraulic system compatible with the Alamo Industrial Cylinder Control Valve. Continue with the instruction in the insert you will need the hydraulic connection kit..

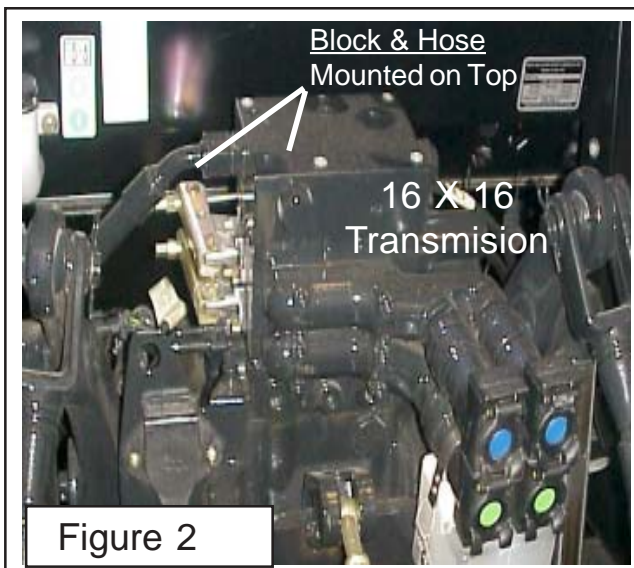


Figure 2: If your remote valve looks like this one you WILL NOT NEED the Hydraulic Connection Kit P/N 02891129 installed, The tractor hydraulic system is already compatible with the Alamo Industrial Cylinder Control Valve. Disregard this insert sheet except to note you will have this kit but will NOT install it.

Stack Valve - Tractor w/ 16 X16 Transmission

Stack Valve Connections: Tractors With 16 X 16 Transmission Only Tractors with Piston Pump. (Check Which Transmission You Have)

This Section covers the hoses that are connected to the rear of the tractor at the tractors control valve to supply hydraulics to the Machete Cylinder Control Valve mounted at the front of the tractor. If these are not connected correctly the units hydraulic cylinders and cylinder control valve cannot function. **This Only Applies to tractor with a 16 X 16 Transmission Only. See end of this section for tractors with other transmissions as the hoses will connect differently on those tractors.**

1. Locate the connections at the rear of the tractor.
2. Locate the fittings in the mount kit that will be used to connect the hoses
3. Locate the hoses that will connect to the rear of the tractor.
4. All Tools, Work Area, Components and Workers Hands must remain Clean when working on any part of the Hydraulic System. All hoses and fittings should remain plugged till ready to install them to keep them clean.
5. All components should be rechecked for tightness at least twice, Hose routing also double checked.

Install Fittings and Hoses into Tractor Stack Valve:

1. Preparing Tractor. At the rear of the tractor locate the hydraulic stack valve for the tractor hydraulic system. There are a total of three Allen head plugs that will be removed. 1 st. the pressure port plug, 2 nd. The return port plug and 3 rd. the load sense port plug. These plugs will be painted and this paint can cause the Allen wrench to fit tight, make certain the wrench is well engaged to prevent it from slipping out. Remove these plugs one at a time and install the correct fitting in it before going on to the next. (See Figure 3)

2. Install Fitting into Stack Valve. The Fittings are shown in figure 2, The straight adapter fitting will install in to stack valve for the pressure port and the return port. The pressure port fitting is smaller than the return port fittings. Make certain to install any sealing washers or O-rings that are included with removed plugs or new fittings (See Figure 5). The 90 degree swivel elbow will be installed onto the straight adapters. The small 90 degree elbow is for the load sense port and will install directly into the stack valve. DO NOT unplug any of these fittings until you are ready to install the hoses. This will keep any contamination from getting into them. (See Figure 5 & 6)

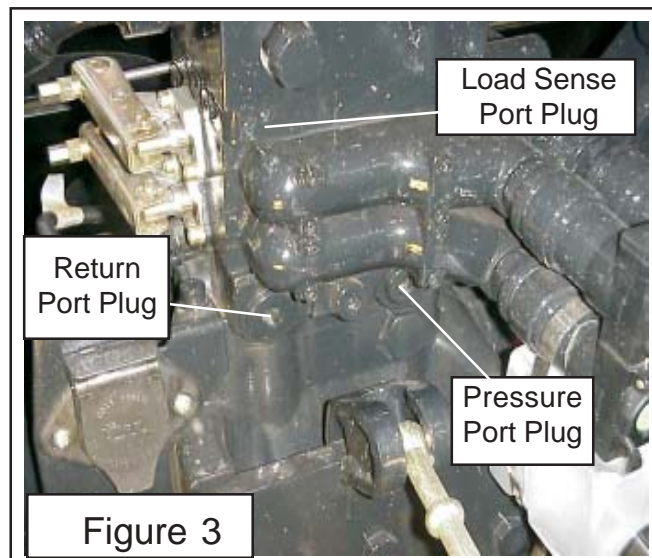


Figure 3

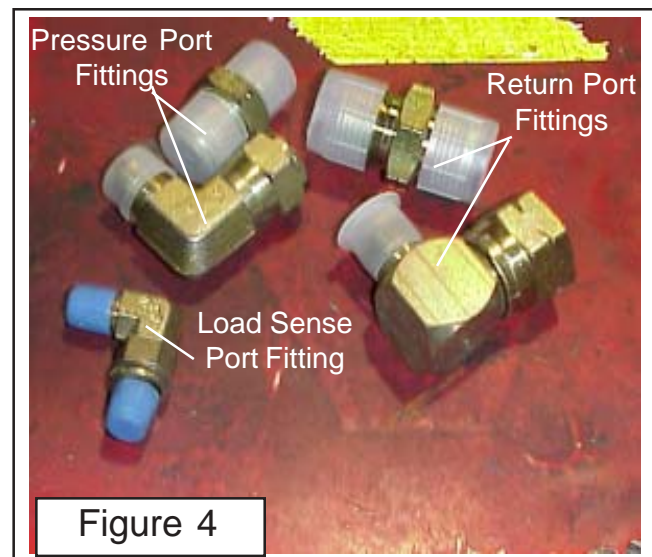


Figure 4

Stack Valve - Tractor w/ 16 X16 Transmission

3. Install Hoses to Stack Valve. The Hoses will attach to the stack valve and be run up over the top of the valve and down under the cab on the right hand side. These hoses will be run over the top of the battery box next to the engine, they should be tied up to keep them clear of the exhaust system and anything that might rub and damage them. (See Figure 7). The hoses must be connected to the correct port at stack valve and again at the front of the tractor to function properly. The hoses will have plastic ties on them to identify where they connect. The Pressure Hose has a solid red plastic tie, the return has a solid orange plastic tie and the load sense hose has a solid yellow plastic tie.

4. Hose going to front of tractor. The hoses going to the front of the tractor from the stack valve will hang in the front and not be connected until the tank and valve have been installed. The hose from pressure port (red tie) will connect to the inlet side of the small pressure filter mounted to the left of the pump on the tank, the hose from the outlet side of this small filter will connect to the "P" Port of the control valve. The return port hose (orange tie) from the stack valve will connect to direct to the "T" port of the control valve. The Load Sense Port hose (yellow tie) which is the smaller of the three hose from the stack valve will connect direct to the control valve, there is a small elbow on the side of the valve next to the "T" port for the load sense hose to connect to. (See Figure 8)

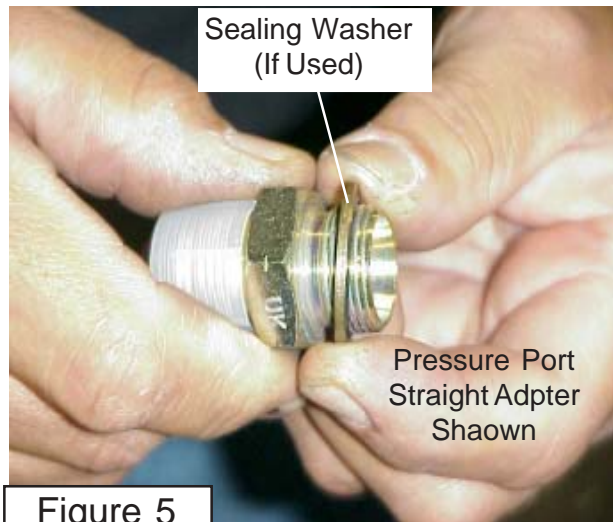


Figure 5

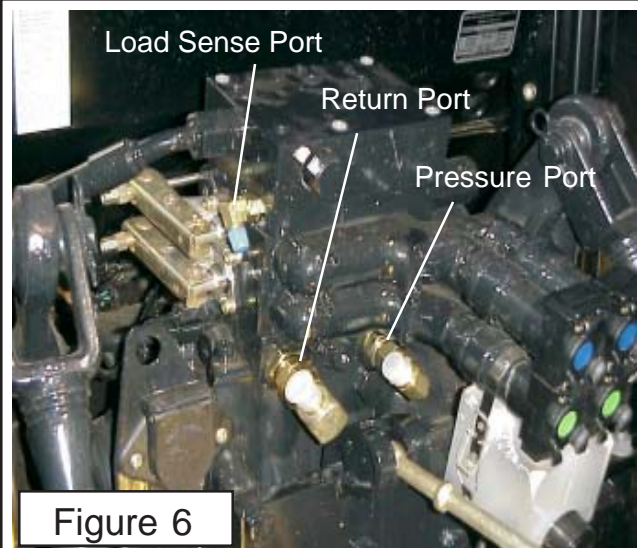


Figure 6

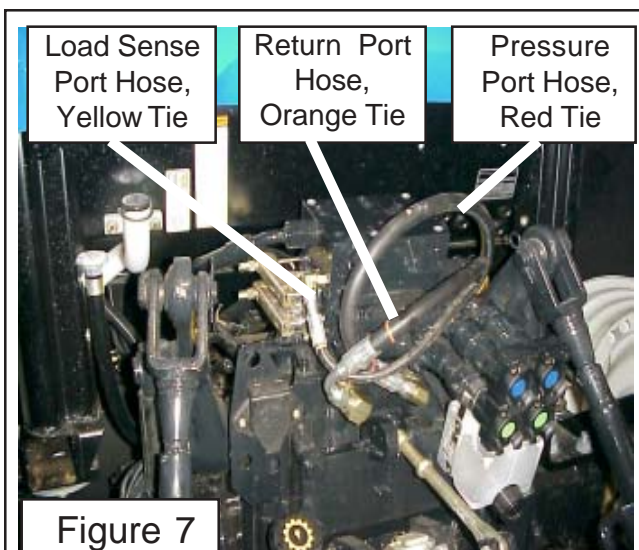


Figure 7

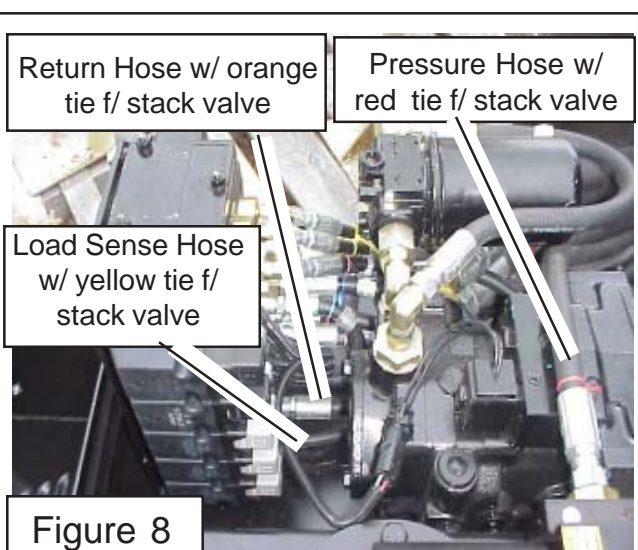


Figure 8

Stack Valve -Tractor w/ 12 X12 & 24 X 24 Transmission

TS-A W/Fixed Disp. Gear Pump Kit P/N 02981129

Hydraulic Connection Kit P/N 02981129 Used on tractors with 12 X 12 & 24 X 24 Transmissions Only:

This kit is to be used on Tractors with the 12 X 12 and 24 X 24 transmissions, this is very important to check which transmission the tractor has before beginning this installation.

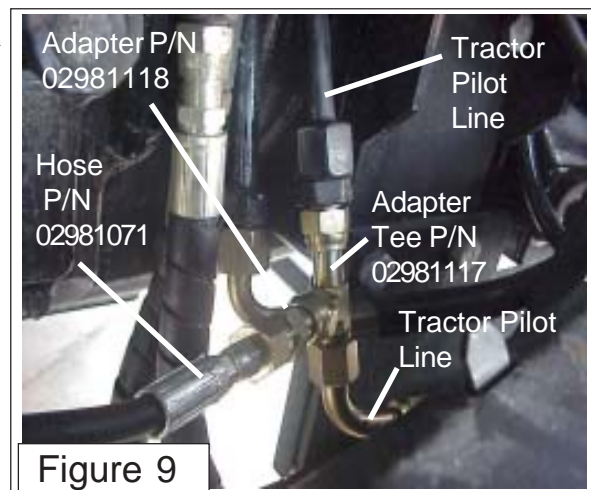
The Hydraulic Connection Kit is designed to be used on New Holland TS-A models that utilize a fixed displacement gear pump. This is to make the Alamo Industrial Cylinder Control valve compatible with the tractor hydraulics.

This will only apply to New Holland TSA models with the Fixed Displacement pump (Gear Pump) with mechanical draft control and mechanical remote valves. This is available from New Holland TS-A models with the 12 X 12 or 24 X 24 Transmission only. This kit will not apply to tractors with the piston pump (or 16 X 16 transmission) and will leave the installer with extra parts that will not be used if used on tractors with piston pump.

The Kit P/N 02981129 will include the required components to make this conversion. Page 4-2 to see if this kit should or should not be mounted because tractor has a 16 X 16 transmission, you will have unused components.

Hydraulic Connection Kit Installation: (Components in Connection Kit P/N 02981129)

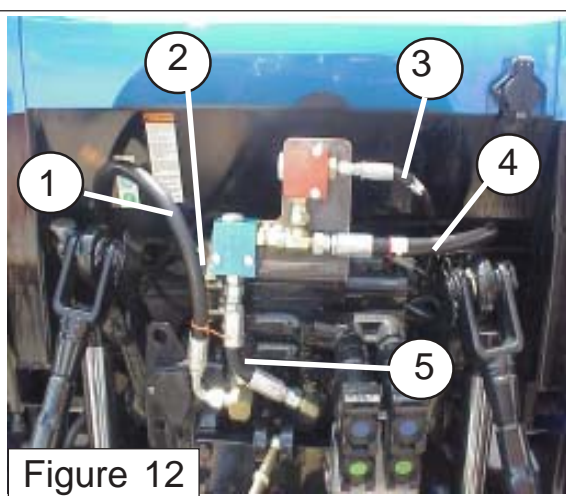
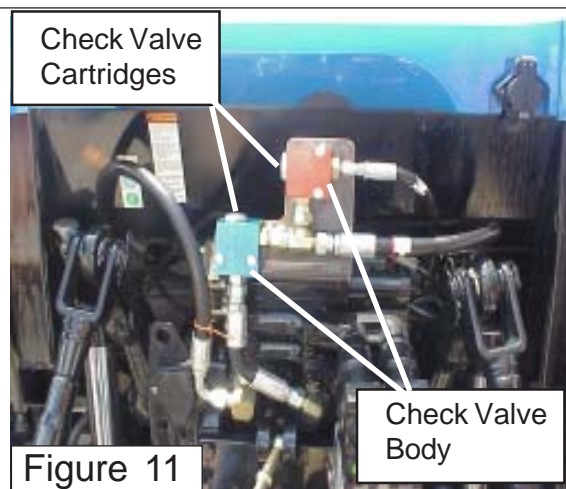
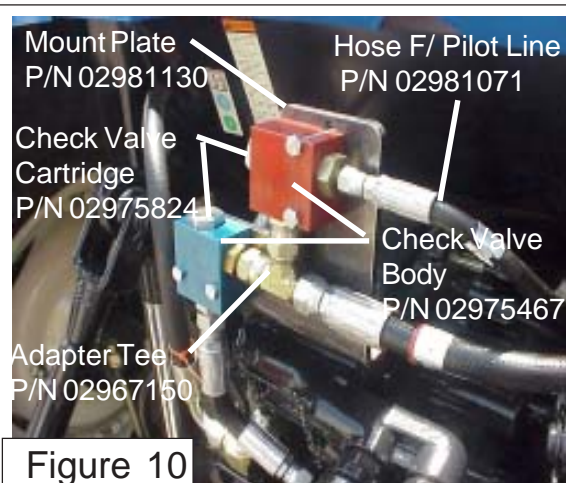
- 1. Connect Adapter Tee to Tractor Pilot Line.** Locate the Tractor Pilot Line (Return Line from Power Steering). The Pilot line is located on the RH side of the tractor behind the battery box. The Battery Box will swing out to allow access to this line. When installing the adapter Tee (P/N 02981117) & Adapter (P/N 02981118), the Pilot Line will need to be moved some and realigned to allow for the additional length being added into it and bent inward to make the new line connection clear the battery box. Follow the pilot line upward you will see that it is connected to a filter, loosen the line at the filter and this will allow you to align the Tee and lines up easier (See Figure 9). Connect the pressure hose (P/N 02981071) to the Tee Adapter and run the hose up under the cab to the rear of the tractor. (See Figure 9 & 10)
- 2. Install the Mount Plate to Tractor.** The Check Valve Mount plate (P/N 02981130) will be bolted to the top of the tractor stack valve using two bolts on the back side. (Note the Valve Bodies & the Mount Plate are an assembly).
- 3. Install One Way Check Valves.** The Check Valves, mount plate and fittings will be sent as an assembly. Bolt this assembly to the tractor remotes. This assembly will bolt on top of the tractor remotes (See Figure 10, 11 & 12)



Stack Valve -Tractor w/ 12 X12 & 24 X 24 Transmission

Hydraulic Connection Kit Installation: (continued)

4. Hose Connections. (See Figure 12) The hose connections are numbered but do not have to be installed in any special order. ① This is the tank return hose from the "T" port on cylinder control valve back to the tractor tank, it will have an Orange plastic tie on it and is furnished w/ mount kit. ② This is the Load sense hose that connects to the load sense port on cylinder control valve, it will have a yellow plastic tie on it and is furnished in mount kit. ③ The hose from the tractors pilot valve supplies approximately 250 PSI Pilot pressure that is added from the hydraulic connection kit. ④ The Pressure hose to the cylinder control valve connects to the "P" port of cylinder control valve. ⑤ The Supply hose from tractor pressure to check valve body is furnished with hydraulic connection kit.



Section 6

MACHETE

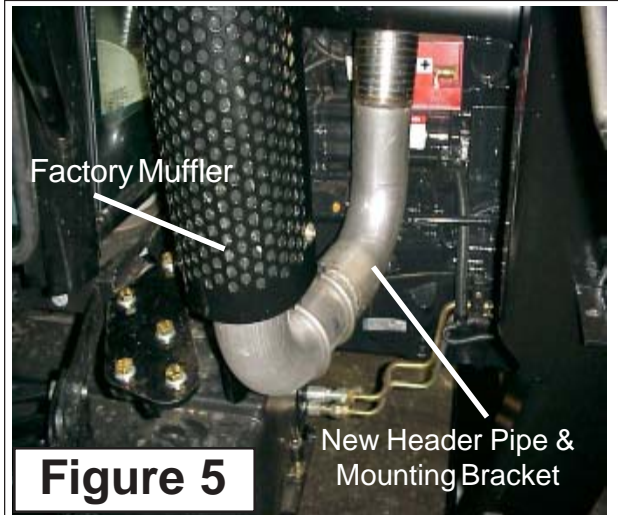
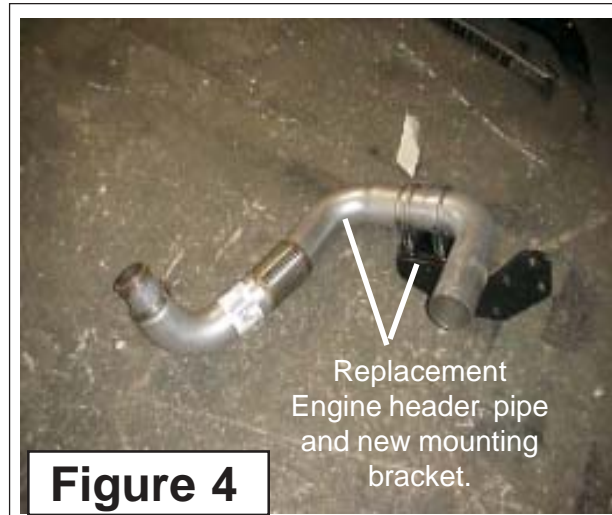
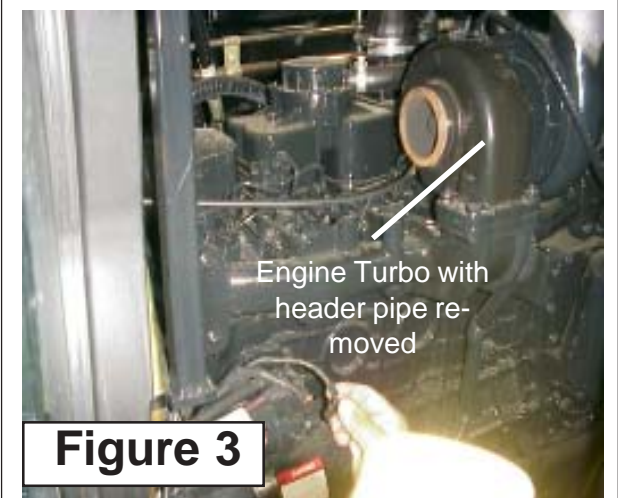
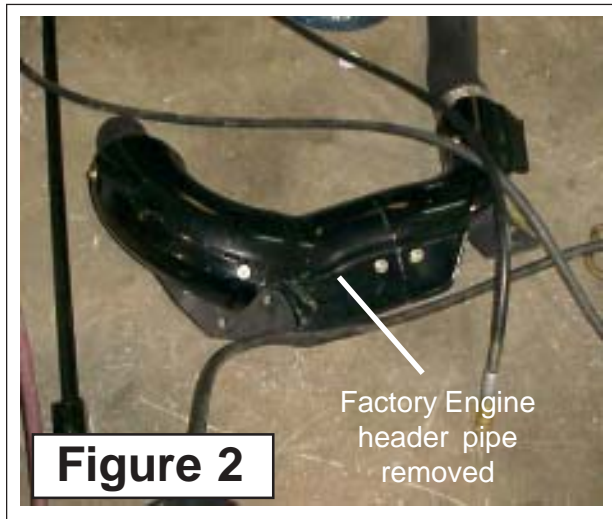
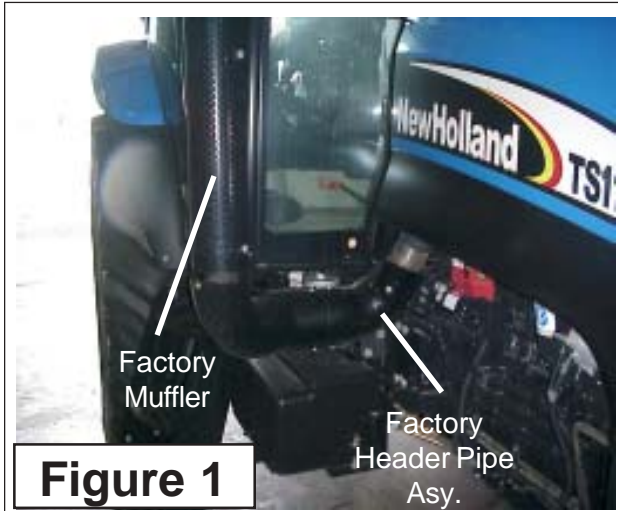
New Holland Tractor TS-100A, 115A, 125A & 115A

Tractor Exhaust Modification

Tractor Exhaust Modification 2 WD & 4 WD

Tractor Exhaust Modification:

1. Relocate Factory Muffler. The Factory muffler must be moved inward 6-1/2" in order to clear the Boom when it is placed in the boom rest. This is done by removing the muffler and muffler mount from the tractor cab. (See Figure 1), The procedure for the TS100A & the TS115A is the same but some parts are different.
2. Remove Factory Exhaust Header Pipe and Mount, The factory exhaust header pipe needs to be removed. This is done by removing the clamp for the header pipe at the turbo. Any time the turbo connections are removed make certain that nothing gets into turbo by accident. (See Figure 2 & 3)
3. Install new Header Pipe & mounting Bracket. Install new Header Pipe & muffler mounting bracket, Discard the old factory header pipe and bracket as it will not be used. (See Figure 4 & 5). With the new header pipe and mounting bracket installed reinstall the muffler. (See Figure 5). The muffler will set 6-1/2" further in than the factory setting.



Section 7

MACHETE

**New Holland Tractor
TS-100A, 115A, 125A & 115A**

**Hydraulic Tank &
Control Valve
Installation**

Hydraulic Tank & Control Valve Installation

Hydraulic Tank and Control Valve installation:

This Section covers the installation of the Hydraulic Tank and Control Valve Assembly. The Tank and valve are shipped as an assembly.

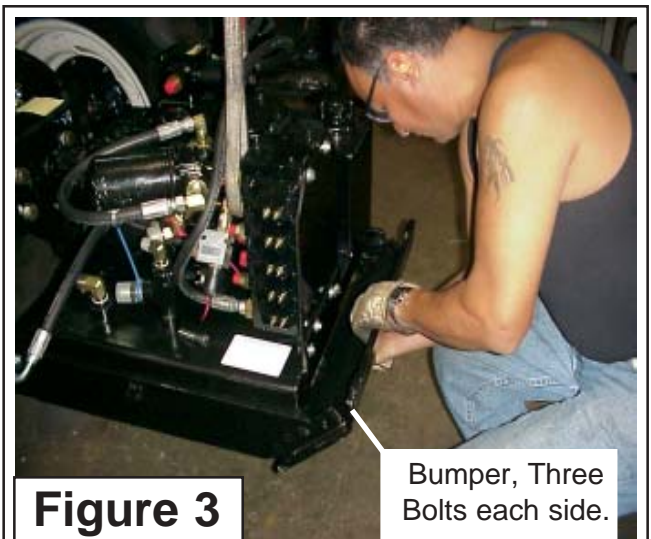
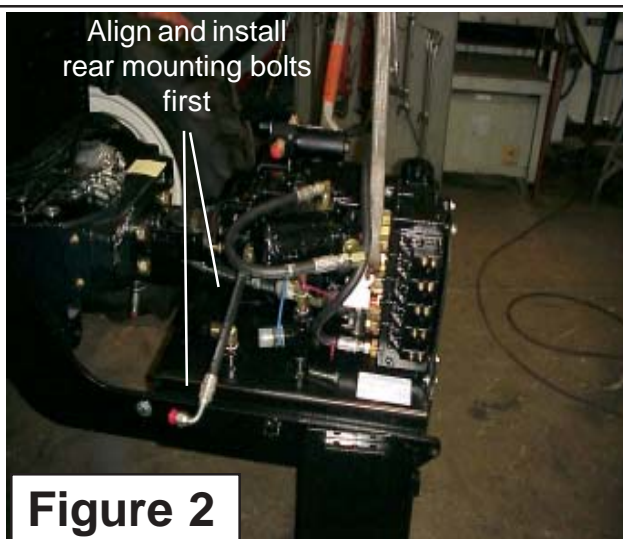
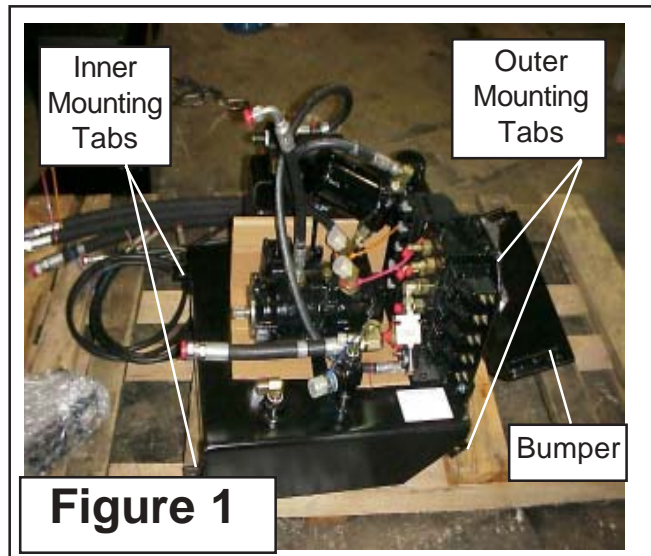
1. Locate hoses from the stack valve at the rear of the tractor where the end at the front of the tractor.
2. Locate Tank and Valve Asy, this will need to be lifted with a hoist, there is also front bumper wldmnt to be installed with the tank as front two bolts of tank also mount bumper.
4. All Tools, Work Area, Components and Workers Hands must remain Clean when working on any part of the Hydraulic System. All hoses and fittings should remain plugged till ready to install them to keep them clean.
5. All components should be rechecked for tightness and Hose routing also double checked.

Install Fittings and Hoses into Tractor Stack Valve:

1. Hydraulic Tank and Valve Assembly. The Hydraulic Tank, Control Valve and Pump are shipped together (See Figure 1). The Pump should have already been mounted.

2. Install Hyd. Tank & Control Valve Asy. To install the tank and valve assembly you should use an over head hoist to lift Tank and Valve Assembly, as it is heavy and can be damaged if dropped. The hoist will also assist when aligning the mounting holes. There are two mounting tabs in the rear of the tank and two in the front of the tank. Mount the two rear bolts first, the bumper will also mount to the front bolts. The hydraulic tank slide under pump and between the LH & RH Tank rails.

3. Move Return filter to make better access to Valve and tank connections. The large filter is the pump return filter and can be moved over to allow better access to the connections of the valve and tank. (continued next page)



Hydraulic Tank & Control Valve Installation

3. (continued from previous page) To do this loosen the swivel fitting so the filter end can be turned upward, snugging the swivel fitting will hold it up till you finish the other connections. (See Figure 4 & 5)

4. Hose going to front of tractor from tractor stack valve at rear of tractor. The hoses going to the front of the tractor from the stack valve will hang in the front and not be connected until the tank and valve have been installed. These hose must be slid into the sleeving before connecting them. The hose from pressure port (red tie) will connect to the inlet side of the small pressure filter mounted to the left of the pump on the tank, the hose from the outlet side of this small filter will connect to the "P" Port of the control valve. The return port hose (orange tie) from the stack valve will connect to direct to the "T" port of the control valve. The Load Sense Port hose (yellow tie) which is the smaller of the three hose from the stack valve will connect direct to the control valve, there is a small elbow on the side of the valve next to the "T" port for the load sense hose to connect to. (See Figure 6)

5. Hose going from pressure filter to valve. The hoses going from the pressure filter to the valve ("P" Port on Valve) needs to be run under pump, to do this remove hose from fitting and turn fitting down. This is make certain tank cover will not rub hose. (See Figure 7)

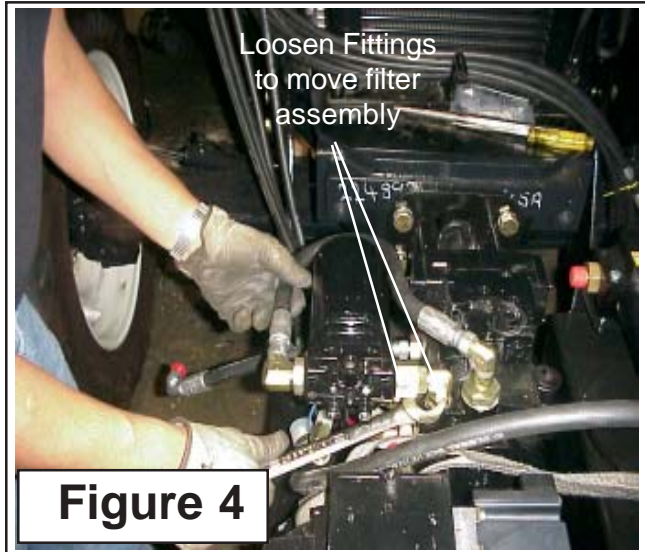


Figure 4



Figure 5

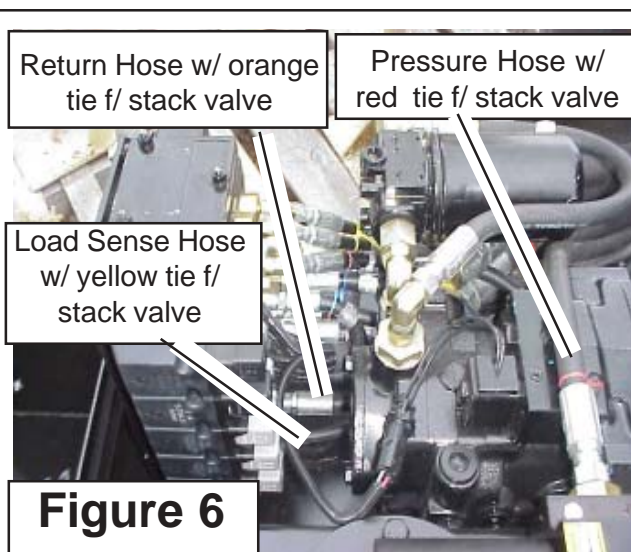


Figure 6

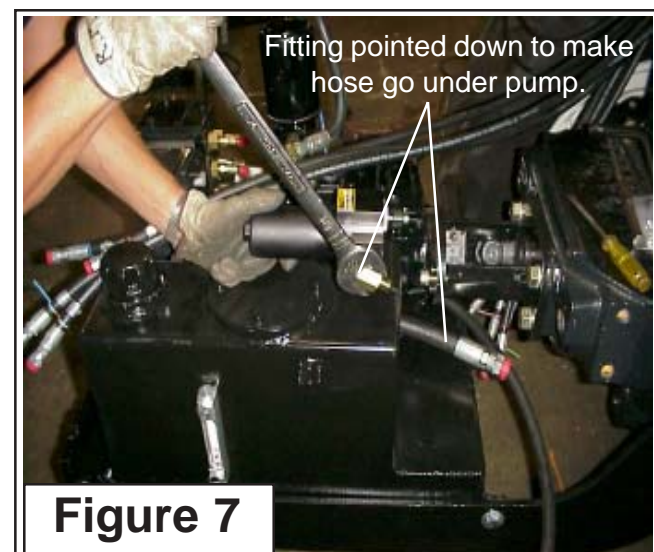


Figure 7

Hydraulic Tank & Control Valve Installation

6. Hose Routing. The Hose routing is shown on a decal located on the tank, the RH side below the valve. All the hoses cannot be connected at this time. The hoses and wire harness must be covered with the supplied sleeving in mount kit. All hoses will color coded with colored plastic ties, these codes are listed below (See Figure 8 & 9) as well as on a decal on tank. When connecting hoses follow these color codes as shown here as well as other place in manuals.

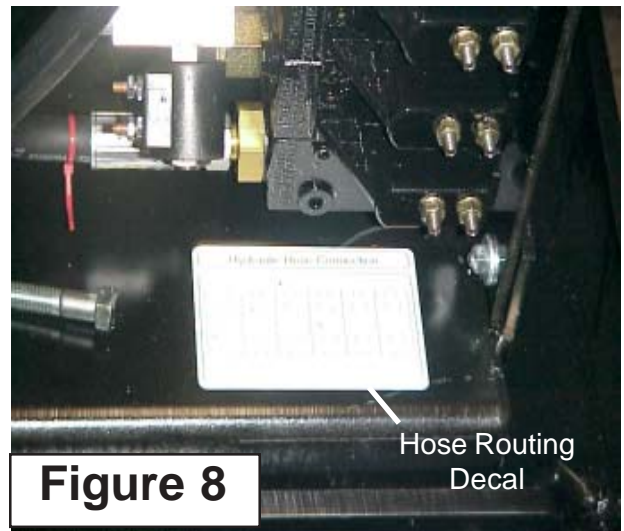


Figure 8

Valve Hydraulic Hose Connection

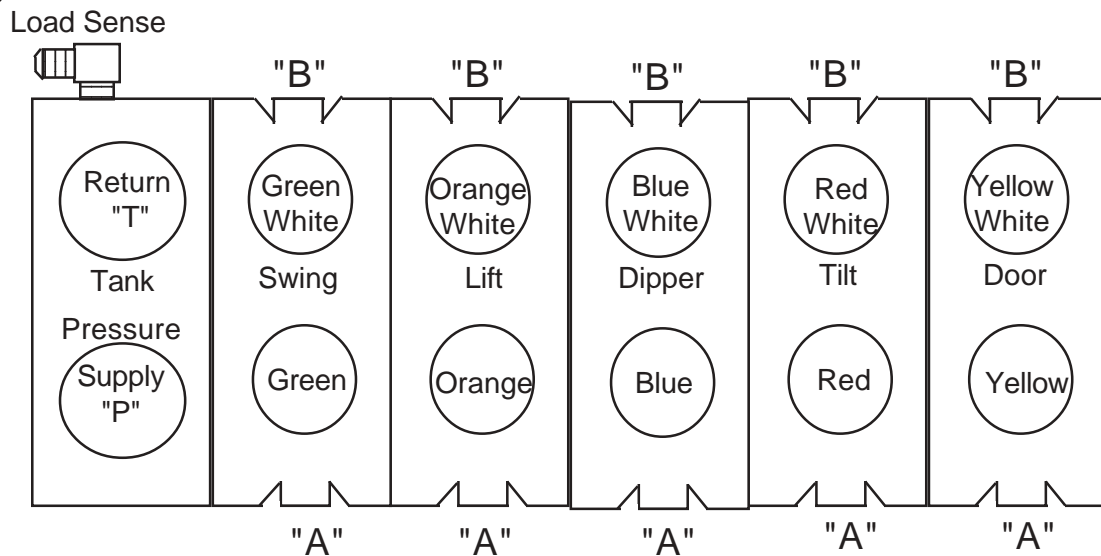


Figure 9

Section 8

MACHETE

**New Holland Tractor
TS-100A, 115A, 125A & 115A**

**Joystick - Wire Harness &
Valve
Installation**

Joystick Mounting

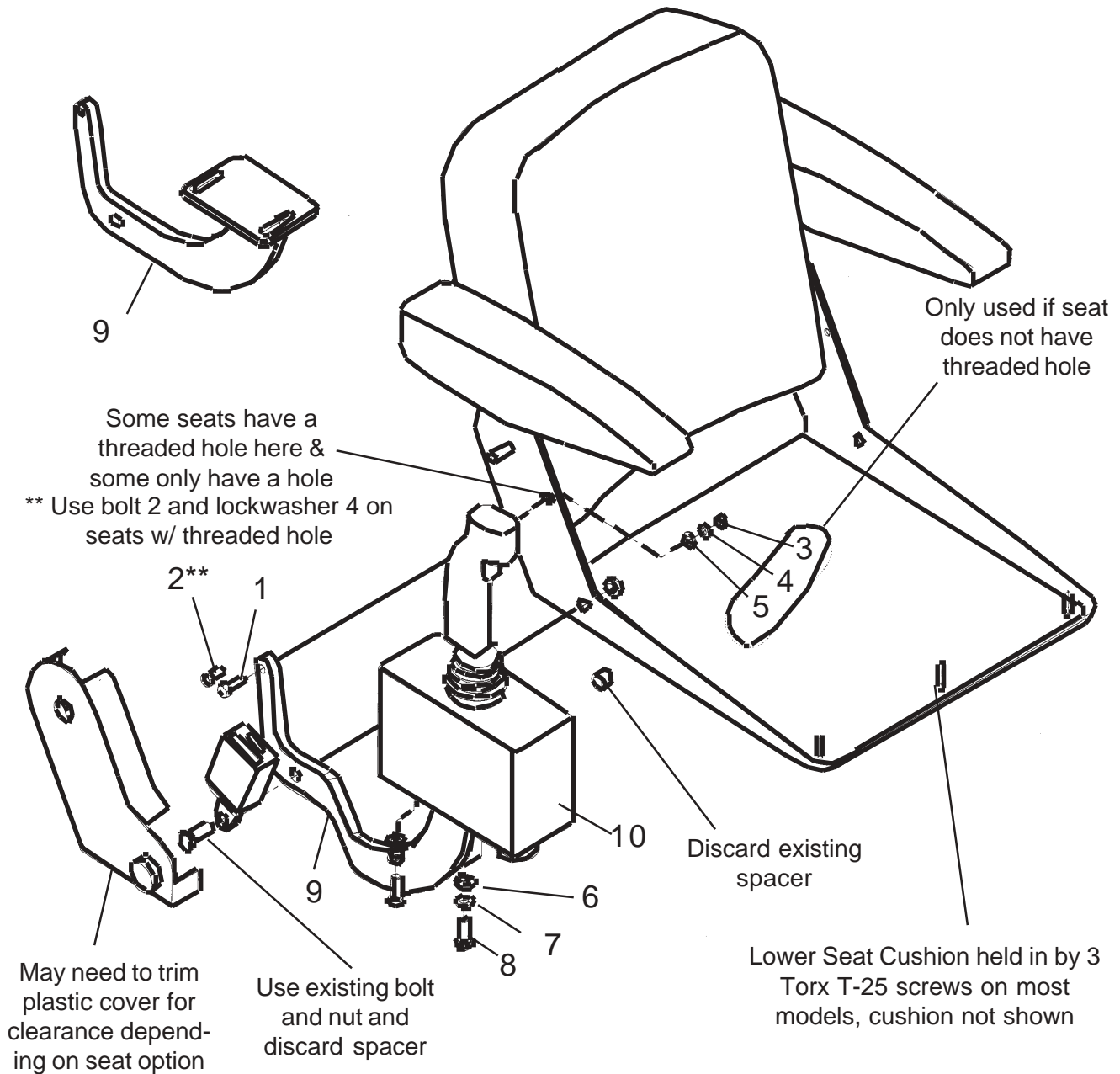


FIGURE 1

Item	Part No.	Qty	Description
1.	10119000	1	Bolt, 5/16" X 1 **
2.	02958784	1	Bolt, 8 mm X 20 mm **
3.	00021800	1	Nut, 5/16"
4.	00011700	1	Lockwasher, 5/16"
5.	00023500	1	Flatwasher, 5/16"
6.	00011100	2	Flatwasher, 3/8"
7.	00012101	2	Lockwasher, 3/8"
8.	00011400	2	Bolt, 3/8" X 1
9.	02980715	1	Joystick Stand Weldment, Seat Mount
10.	-----	ref	Joystick

Joystick Mounting

Installing Wiring Harness and Joystick:

1. **It is recommended** that the Wires for Joystick be connected at the Tractor Ignition Switch. But they can be connected as explained below. If connected as shown below Wires must be traced to find the correct wires. Not all illustration will match the model that you are working on, some are for illustrations purpose only and are intended as a reference only. Consult the Tractor repair Manual for the identification of specific wiring and location of wires.

2. **Preparing Tractor Floor Mat.** First thing to do is remove the Battery Cables from Battery, Do Not perform any work on Tractor unless this has been done. Raise the Floor Mat up on the RH Side by the RH Door, You will need to fold it back approx. 12 to 14 inches (See Figure 3). **DO NOT Tear or Cut any Holes in Rubber Floor Mat, as it will NOT be required.**

You may find a rubber plug or you may have to cut a hole with a hole saw, this will have to be decided during installation. If you need to cut a hole, check the under side of cap for any obstruction or any component that might be damaged before you cut the hole. Check to make certain the installation will not interfere with the operators normal functions. Slide the Wire Harness around floor mat until it is near seat (See Figure 4 & 5). Floor mat can be reinstalled now by pushing it back into place.

3. **Tractor Wiring Harness.** Consult the Tractor manufacturers manual for wire locations.

4. **Wires to be Connected.** You will need to find the wire from the switch that activates the Starter Solenoid for the Tractor This wire will need to be cut to form 2 ends. You will need to locate the Ignition Switch Power Wire; this wire will have current only when Ignition Switch is on. This Wire will have a wire Tee'd into it. (See Figure 6)



FIGURE 2

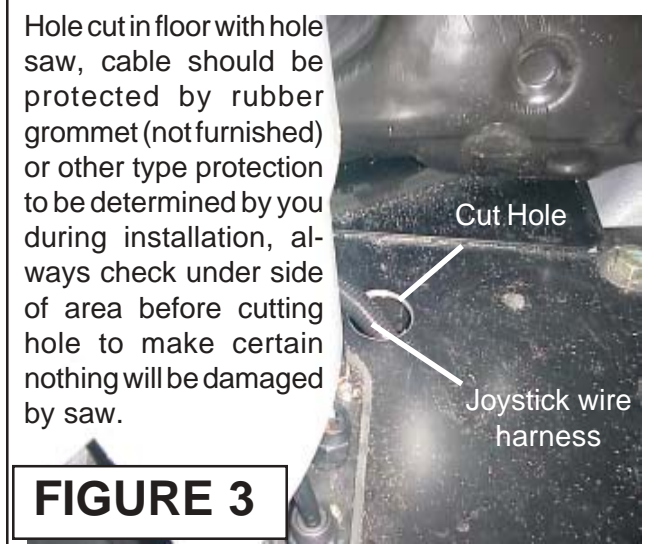


FIGURE 3

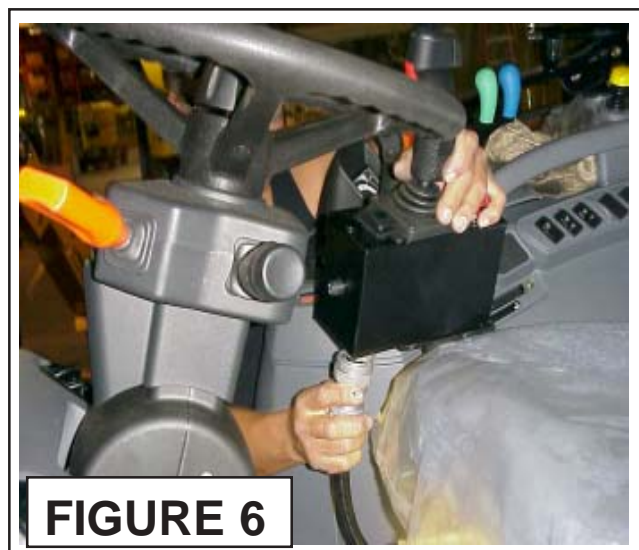
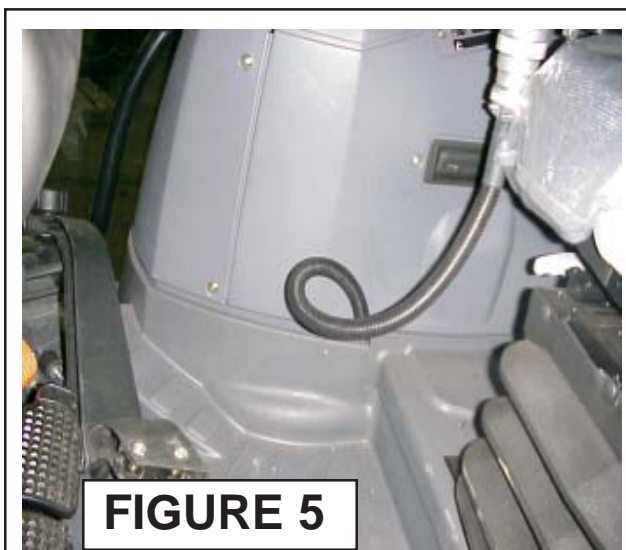


FIGURE 4

Joystick Mounting

Installing Wiring Harness and Joystick: (continued)

5. **Remove Tractor Seat Cushion.** Remove Lower Seat Cushion from Tractor Seat if the upper mount hole is not threaded or the lower (seatbelt Bolt) does not have the nut welded to seat frame, some do and some do not. The Seat Cushion should have three Torx head screws across the front edge (See Figure 1). Once these screws are removed, lift up on the front of the Seat Cushion which should slide forward and out.
6. **Install Joystick Weldment Seat Mount.** Remove the plastic cover as shown in figure 1 on the right hand side of seat. Remove the existing bolt that retains the seat Belt receptacle, there is a spacer between the seat belt buckle and the seat base. This spacer will be discarded and not used. The Joystick Stand Weldment will be retained using two bolts, the top bolt on some models (seat options) will have a threaded hole and have metric threads and require only bolt and washer (items 2 & 4). Some will have just a hole and will require nut and washers (items 3,4,5). The Second Bolt will be the existing bolt that held seat belt receptacle on, with the spacer removed and joystick stand installed the length requirement will be the same. Reinstall the plastic cover (trim if required).
7. **Install Joystick.** On the mount plate of the Joystick stand weldment there are two slotted holes, sit the joystick down on mount and align the two threaded holes in the bottom of the joystick case with the slotted holes and insert the two 3/8" X 1" bolts (P/N 00011400) with the 3" Flatwasher (P/N 00011100) and the 3/8" Lockwasher (P/N 00012101). Do not tighten these two bolts yet. (See Figure 6)
8. **Reinstall Tractor Seat Cushion.** Reinstall Tractor Seat Cushion in reverse of step 1. Test Seat to make Sure that it does not bind when slid forward or back as adjustment. If there is a Bind, check and correct problem.
9. **Adjust Joystick Mounting Position.** On the mount plate of the Joystick stand weldment there are two slotted holes, this is to align the joystick case with the desired operating position, this can only be done while sitting in the seat and sometimes is better done by the actual operator of the equipment. If you are adjusting this and you are not the operator you might want to explain this operation to the actual operator (See Figure 6).



Joystick Mounting

Installing Wiring Harness and Joystick: (continued)

5. Insert Wire harness through Floor Plug or cut hole. Insert until the 4 wires that are not in the wire Harness are even with the Floor. The wires that are sticking out of harness will be run under Floor mat and under dash panel to switch or connected to the tractor harness. These wires are made long because of the different places they can be connected on various models. The Screw on connector on the end if wire harness will be screwed into the bottom of the Joystick console (See Figure 4 & 7). Align the Plug Guides (there are 1 wide and 2 narrow lugs) that prevent the plug from being installed wrong. Screw the plug retainer onto the Joystick Plug, this will be hand tightened.



FIGURE 7

6. Connecting Harness Wires. There are 4 wires that must be connected inside Tractor. 1. Red Wire (power supply), 1 Black Wire (Ground) and 2 Brown Wires (Neutral Safety Switch). These will have to be spliced into Tractor circuits. (See Figure 7 & 8). The two brown wires can be connected to the tractor ignition switch as shown or they can be connected at the starter solenoid if desired, this will be decided in the installation technician.

7. Ground Wire. The Black wire at the harness (See Figure 7 and 8) can be connected inside the cab floor, or it can be run down through the floor and connected to the frame below the cab. If grounding to the Cab floor connect ground now.

8 Reinstall Floor Mat. DO NOT cut Floor Mat. Make sure you have remounted the wire harness protector over wire harness under floor mat if it is equipped with one (See figure 5). Push the wire harness over against the side panel (See Figure 4). Put the floor mat down as it was originally. When finished floor mat should be as smooth as it was before installation and should not have any holes cut into it.

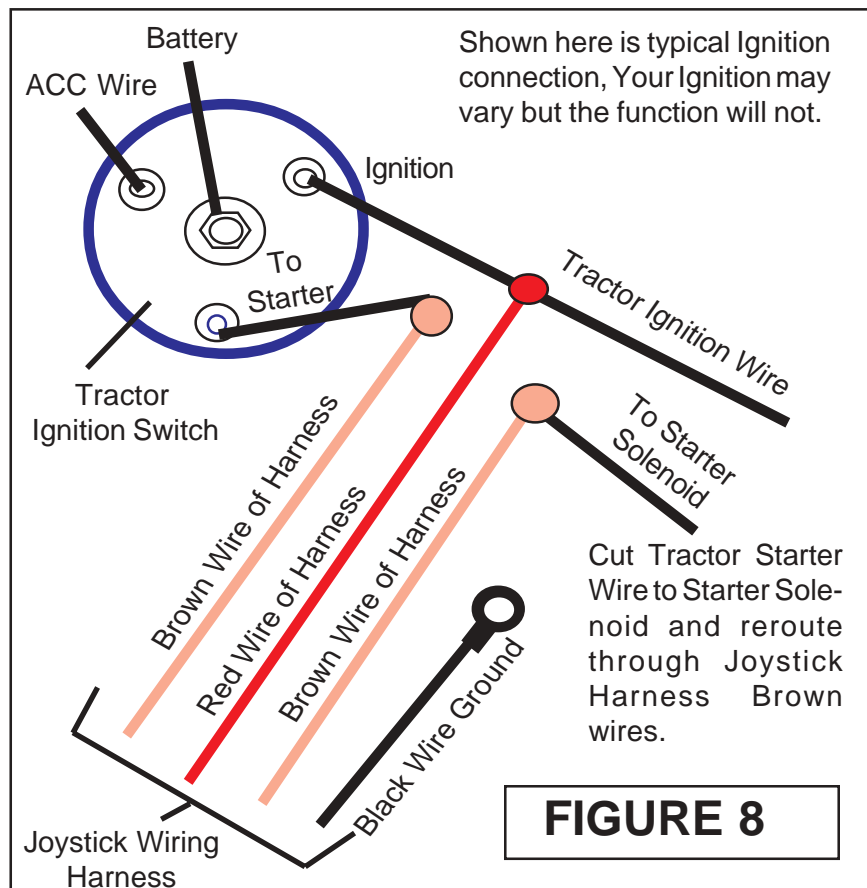


FIGURE 8

Joystick Mounting - Optional

Installing Warning and Instruction Decals:

1. Always clean windows before installing decals. Windows must be dry and free of any oil, after cleaning do not touch windows before decals are installed. Take precaution to make sure decals are right side up and straight when installing them, they cannot be taken off and redone.

2. Identify Decals. Lay all the Decals out and ID each one so you will know which is installed where. The Decals will have the Part Number on them in the lower corners.

Decal No.	Description
00763977	Notice to Owner
02964677	Important - Boom Rest
02963524	Attention - Boom Swing
02965093	Proper Engine Operating
02965262	Warning - Hose Burst
02967827	Multi - Hazard

3. Multi-Hazard - Danger Decal. This is installed on the Left Side Window of Cab on the inside to Drivers Left. (See Figure 9)

4. Warning Hose Burst Decal. This installs on the Right Side Window of Cab on the Inside to Drivers Right (See Figure 10)

5. Notice To Owner Decal. This installs on the inside top rear of Right Door Glass (See Figure 11)

6. Attention Boom Swing Decal. This installs on the inside top rear of Right Door Glass (See Figure 11)

7. Important Boom Rest Decal. This installs on the inside top rear of Right Door Glass (See Figure 11)

8. Proper Engine Operating Decal. This installs on the inside top rear of Right Door Glass (See Figure 11)

FIGURE 9



FIGURE 10

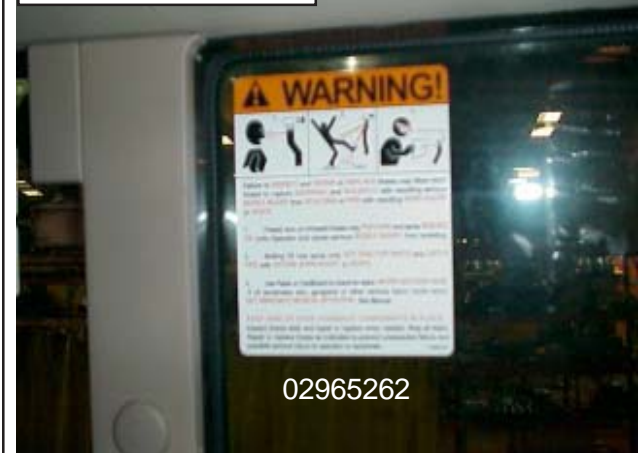


FIGURE 11



Wire Harness / Valve Mounting Optional

Installing Wire Harness To Valve:

1. Wire Harness From Cab to Front.

The wire harness runs out the bottom of the Cab on the right hand side. Run Harness along under RH cab of Tractor to the control valve (See Figure 12). Note the wire harness runs bottom of cab and near the exhaust from the Tractor to the Stack Valve to the front of the tractor. Make certain to tie the Harness or Hoses to the Tractor for protection.

2. Gaskets on Valve Terminals. There are 5 wire terminals on Valve, A Gasket will have to installed on each one. These gaskets will only fit one way, there are 4 slots in gasket. 1 Slot is wider than the other 3, align these slots with correct terminal on Valve. (See Figure 13 & 14). These Gaskets must be used. Note; the gasket are shown laying on a tank only as a back ground, they must be installed on the valve before wire terminals are connected. In the Illustration in Figure 14 the Plugs are no visible because they are under the hoses on the bottom.

3. Connect Lock Valve connections. There is a lock valve use on the head Tilt function, this electric locking device is located at the valve on tilt hose connections, this connection needs to be made now.

4. Wire Harness Terminal Identification.

The Wire Harness Terminal Plugs are marked in writing on the plug. Swing, Lift, Dipper, Tilt and Door terminal plugs (5 Total). The Valve terminals are in this same order starting at the bottom and coming up on the valve. You will need to have a short handle Phillips screwdriver for this. (See Figure 26).

5. Wire Harness Terminal Installation.

You will need to feed wire harness under the fitting of hoses to valve. (See Figure 14) lay the Plugs out in the Order they are to be installed starting at the far end terminal.

FIGURE 12



FIGURE 13

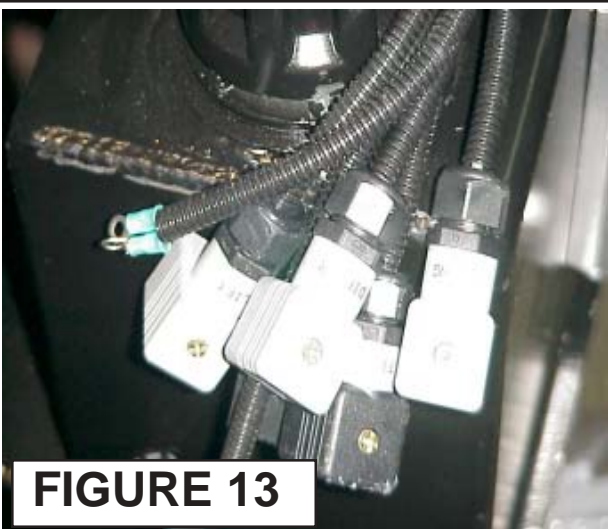


FIGURE 14



Wire Harness / Valve Mounting

Installing Wire Harness To Valve: (Continued)

6. Terminal Connections. Make sure that each terminal Plug on Valve has had the Gasket installed on it, then Install Swing Terminal and tighten Plug Retaining Screw. Continue this with all 5 plugs starting at one end and go to the next end (See Figure 15)

PLUG	FUNCTION
1 Bottom Plug	Swing Terminal
2 2 nd Plug Up	Lift Terminal
3 3 rd Plug Up	Dipper Terminal
4 4 th Plug Up	Tilt Terminal
5 Top Plug	Door Terminal

Using a short handle phillips screw driver connect and tighten all 5 terminal plugs one at a time till all 5 are connected. (See Figure 16)

7. Solenoid Lock Valve Connection. Make certain the Solenoid Lock valve is mounted on the Valve Tilt Port on the bottom Side (See Figure 15). Find the two wires in harness that has eye terminals on them. Connect them to the Solenoid Lock Valve (See Figure 15)

8. Wire Harness Completed. Pull the Wire harness back toward Cab to remove any excess slack, only enough to remove slack not to make Wire Harness tight. Tie wire harness or hoses to Tractor Frame Rails to prevent them from rubbing or getting caught on something..

The Wiring Schematic is shown in this book as a reference only, the wire harness will come to you assembled and ready to mount. The only wires that will have to be altered are the wires inside that connect to the existing Tractor Wires. These inside wires are intentionally left long so they can be cut as needed. None of the wires with the factory plugs will have to be cut.

9. See the next two pages for Wiring Schematic, this is listed as reference only. Pin locations in schematic are actual pin locations in Plugs. Plugs are marked with the letters as shown. This schematic is listed to assist you in tracing wires through harness if needed. Do not change or modify the harness plugs in any way.

Photo showing valve not connected to the Frame for Illustration Only

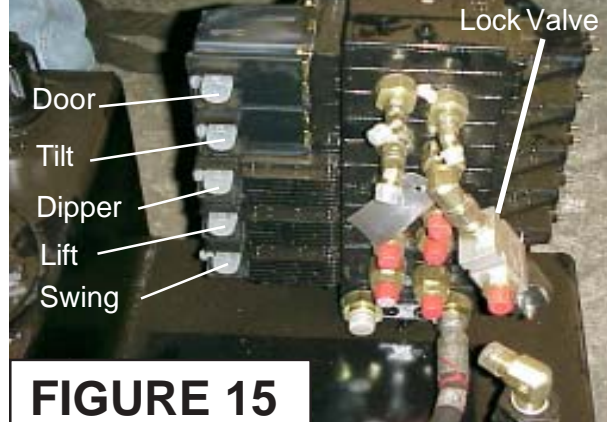


FIGURE 15

Short Handle
Phillips
Screwdriver

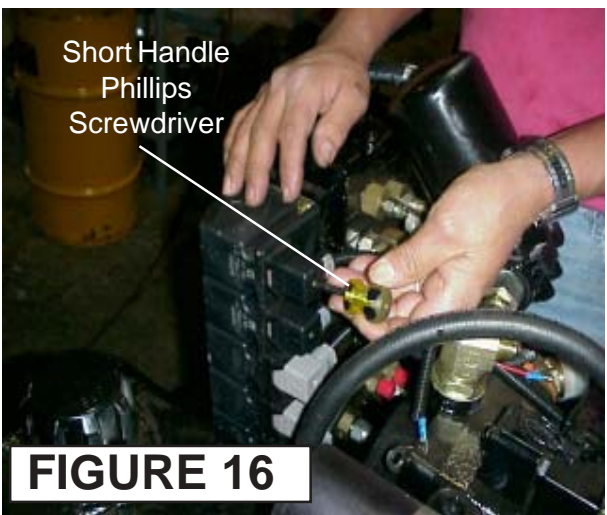
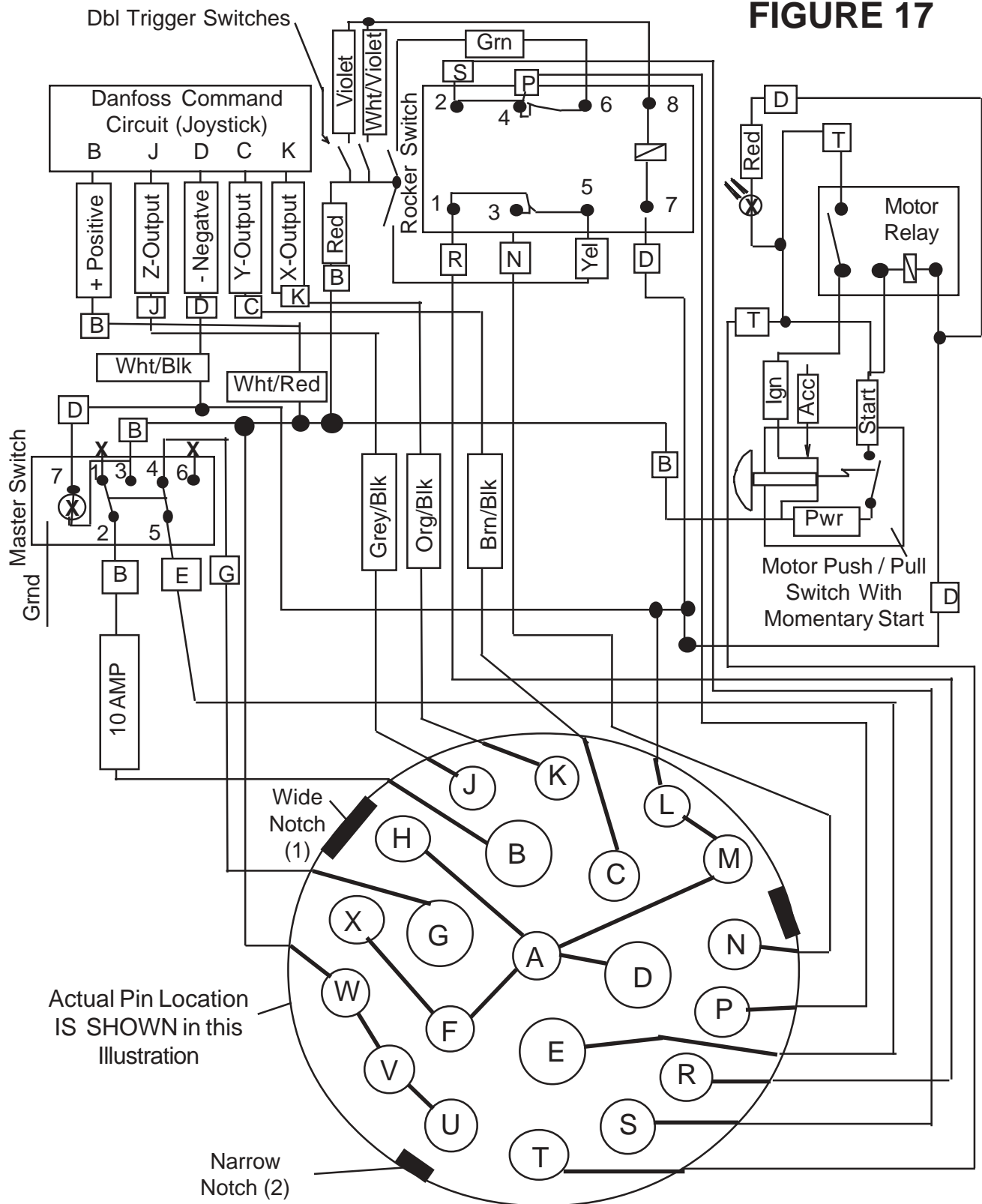


FIGURE 16

Joystick Plug (Bottom of Joystick Console)

Joystick w/ Push/Pull Motor Switch & Rocker Master Switch

FIGURE 17

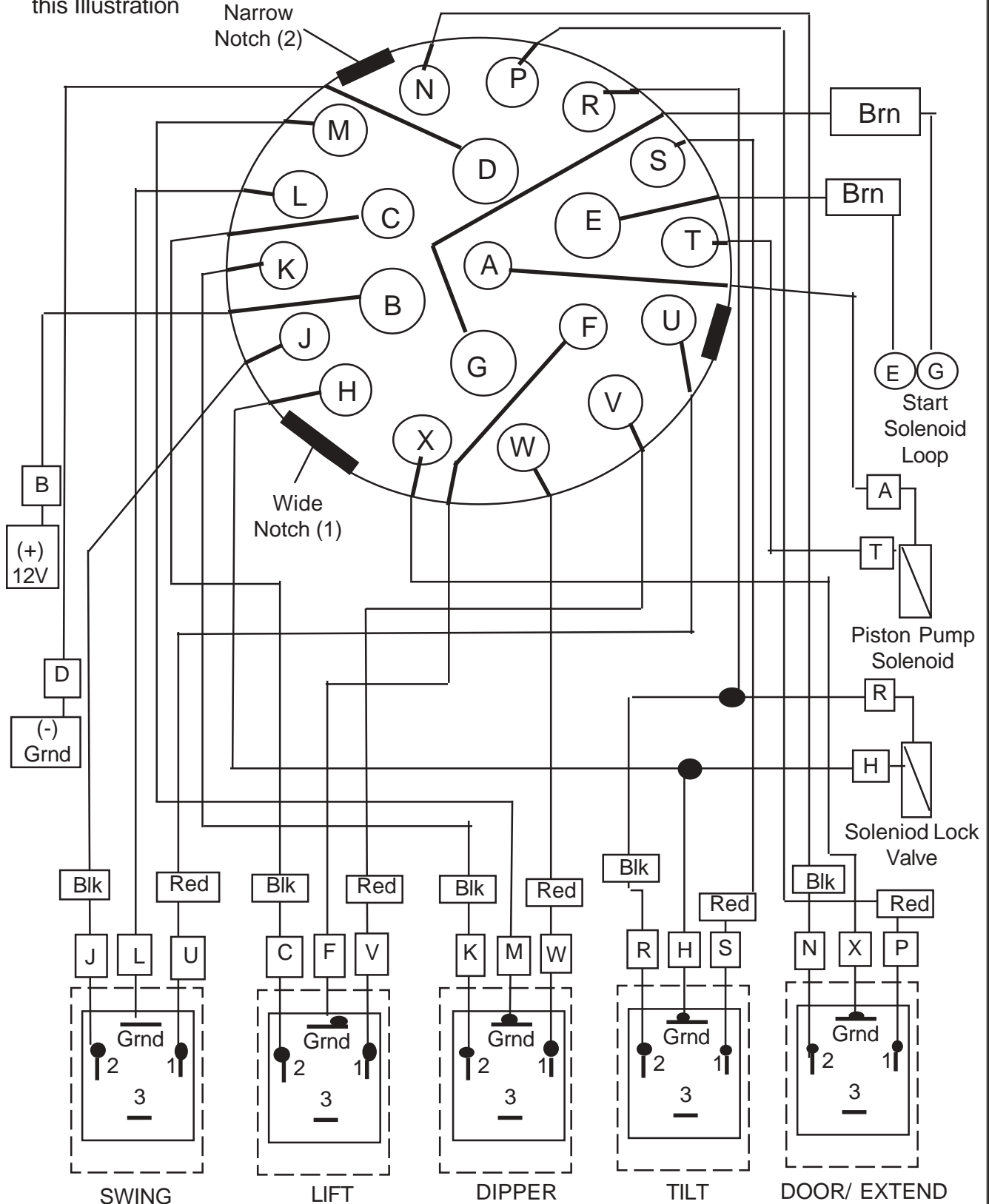


Wire Harness (Joystick Console Plug to Valve)

Actual Pin Location
is Shown for Plug in
this Illustration

Wire Harness Plug (New Style)

FIGURE 18



Control Valve - Electric / Hydraulic

CONTROL VALVES: (See Figure 19)

The Alamo A-Boom Optional Hydraulic Control Valve is an Electro-Hydraulic (Electric over Hydraulic) Valve. The Valve is designed to utilize Oil from the Tractors Hydraulic System. This is basically considered a Selector Valve. The Hydraulic Control Valve must be compatible with the type Tractor System being utilized. There is only one type System used, The Fixed Displacement (Open Center) Continuous Flow. Hydraulic Supply is from front Aux. Pump

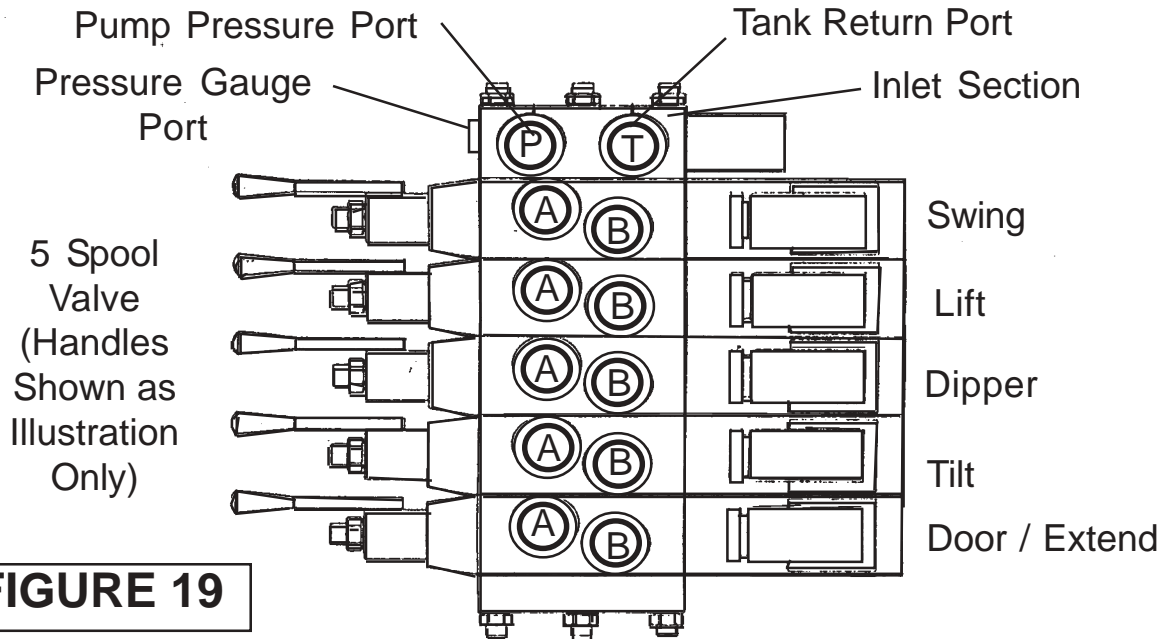


FIGURE 19

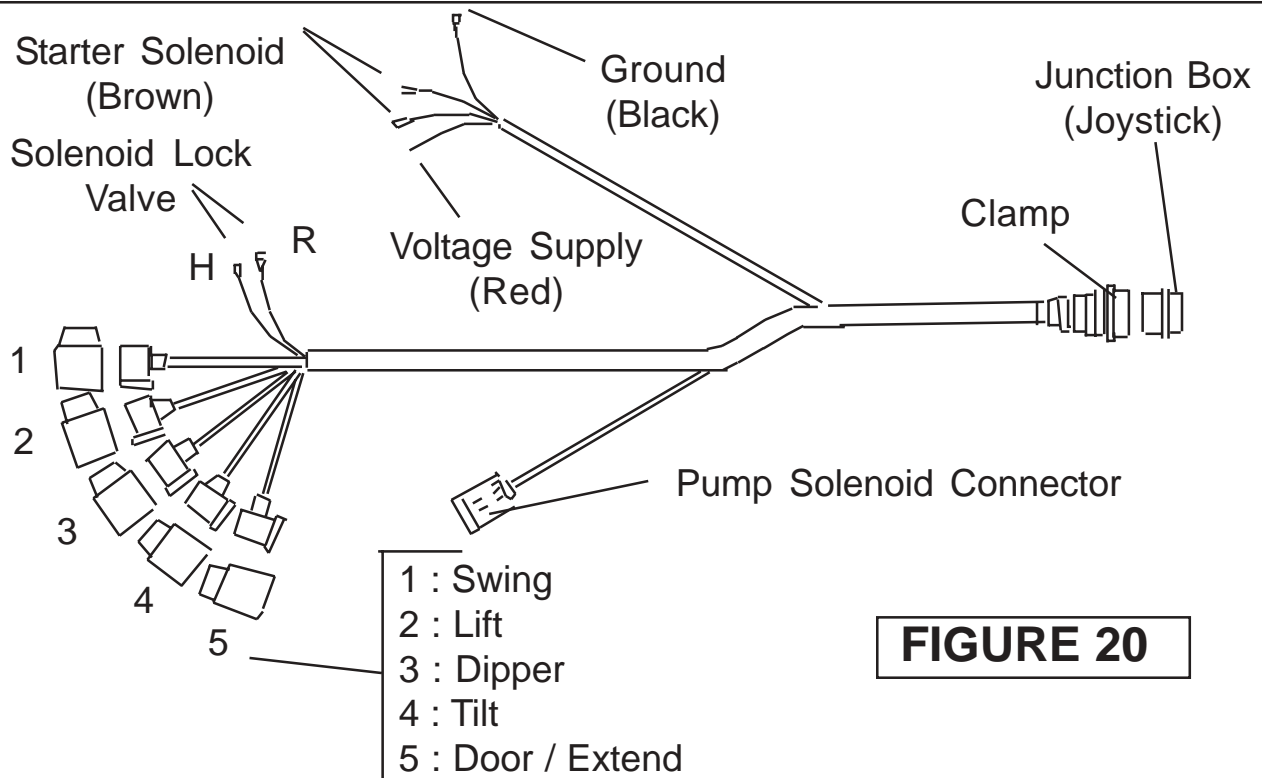


FIGURE 20

NOTES

Section 9

MACHETE

**New Holland Tractor
TS-100A, 115A, 125A & 115A**

**Frame Rail Installation
& High Frame
Setup / Pre- Assembly**

Frame Rail Set Up 2 WD & 4 WD

Frame Rail Pre-Assembly:

The Frame Rail Set UP. The Frame Rails for the Machete will be set up on the tractor, positioned, measured but not welded. The Machete High frame is set on to frame, positioned and leveled. After all is set up and positioned it will be Tack Welded in Place on Tractor. Then it will be disassembled, removed and welded up on the Shop floor. This is done to ensure better welds and to enable the parts to be turned so the components can be Flat Welded. It has been found that this will make the components stronger. This also gives a chance for all frame components to be test fitted and broken loose during this trial if when another component makes the previous one interfere. The Frame Rails will not have to be removed as the welding is done on it at the factory.

The Tractor should be covered and protected from Spark of the Welder and Grinder at all times. It will be your responsibility to protect the Tractor and its components. DO NOT WELD or GRIND near any Glass or Painted Surface unless it is protected from sparks, these Sparks will damage any surface. The purpose for Setting Frame up, tack welding it then removing it, is because with the amount of Welding that will have to be done these frame components will need to be repainted. The repainting is easier with frames off. The Frame components are shipped already painted but this is to protect the metal, plan on repainting them after welding.

DO NOT weld any frame or component until instructed to do so in the instructions. Read through this entire instruction book to be familiar with which part goes where and when.

DO NOT try to man handle large components alone, one slip can break a window, damage a hood or worse. Note the order of assembly of other Assemblies, example the Pump Drive Shaft, Front Rail Supports, Rear Stack Valve Modifications and Joystick Assembly are assembled to Tractor before the frame rails. This is because some components will be in the way of others.

Tools that will be needed to complete this assembly. There are number of different ways to do things, some items are recommended to make assembly easier but may not be required.

1. An over Head Hoist, the hoist (or Lift) should be a 2 ton capacity minimum. Hoist should be able to move and stop within fractions of an inch. Hoist should also have a 12 foot lift (Required).
2. Compressed Air, Air must be filtered and dry. A Safety air nozzle for blowing out Hoses and Fitting prior to assembly. (Required).
3. Air Impact Wrenches, 1/2" Drive and 3/4" drive (Recommended).
4. Torque Wrench, 400-ft lb. rating, can use a Torque Amplifier Wrench. (Required)
5. Complete Set of Combination Wrenches from 7/16" to 2" (Recommended).
6. Assortment of Screwdrivers, (Short ones and Long ones). (Required)
7. Electric Grinder, Size according to needs (Required).
8. Burr Grinder, Electric or Air optional, for resizing Holes and removing Burrs from stamped metal or stamped holes. (Required)
9. Welding Machine with an experienced Welder, capable of welding up to 3/8" material and Welding at different angles. (Required)
10. Flame Proof or flame retardant Material to Cover and protect Tractor finish and components during assembly. (Required)
11. A good fire Extinguisher on hand before any welding or grinding begins. (Required)
12. Clean dust free work area, clean Lint Free towels or wipes. Do not do any welding, use compressed Air or lay out any component unless area is clean. Material the size of a human hair can contaminate the Hydraulic System (Required).
13. A place to keep all Components separate till ready for them (Recommended)
14. Electrical Butt connectors and Electrical Pliers. (Required)
15. Paint Scraper to remove Paint before welding.

Frame Rail Installation 2 WD & 4 WD

Frame Rail Pre-Assembly: (continued)

RH & LH Frame Rails. Shown below are example of Frame rails, There is a Right and Left Frame Rail, They will not interchange from side to side. LH must be mounted on the Left and Right on the Right. To ID which is which, the easiest way is to look for the Counter Weight Mounting Tubes (**See Figure 1 Item 2**), these are welded on to the LH Frame Rail Only. The Rail Mounting Pad (See Figure 1 Item 4) is loose and not welded to the front of the Frame Rail until final assembly. NOTE: TS100A & TS115A will not use same frame rails but will share the other frame rail components and procedures.

Frame Rail Stiffener (Crossmember Item 6). Shown below is the Frame Rail Stiffener . This mounts under the Tractor and bolts between the two Frame Rails during Assembly. The crossmember bolts in using four 3/4" bolt, use a hardened flat washer on top and bottom of bracket. (2 per bolt or 8 for all 4 bolts) (**See Figure 1**). **Changes have been made to limit the amount of welding that will be done on frame rails.**

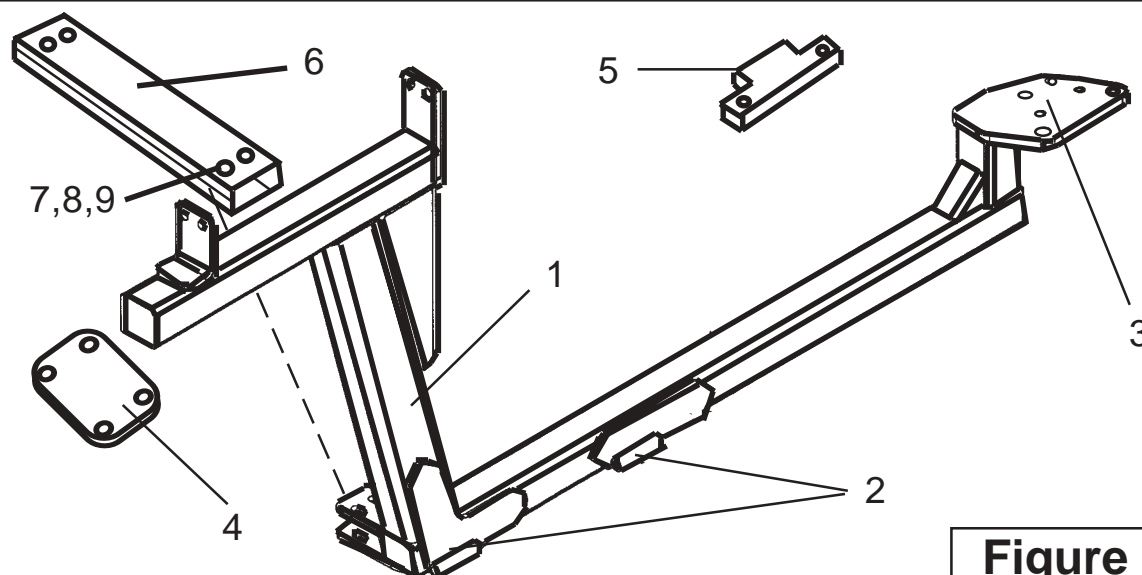


Figure 1

Item	Part No.	Qty	Description
1	02980896	1	Frame Rail Wldmnt, LH (TS115A Shown)
	02980804	1	Frame Rail Wldmnt, LH (TS100A Shown)
	02980904	1	Frame Rail Wldmnt, RH (TS115A Not Shown)
	02980905	1	Frame Rail Wldmnt, RH (TS100A Not Shown)
2	-----	2	Frame CWT Mounting Tube (Welded on LH Frame Rail Only)
3	-----	2	Rear Mounting Plate (Welded on LH and RH Frame Rail)
4	02725900	2	Front Rail Mounting Pad (not welded to frame rail when received)
5	02974704	1	Stabilizer Strap, (Axle Strap) Used on LH Side only, RH Strap is part of Boom Rest reinforcement bracket.
6	02980693	1	Crossmember Tube, (connects LH & RH Frame rails)
7	02980730	4	Bolt, 3/4" NC X 4-1/4" Gr 8
8	00037200	4	Locknut, 3/4" NC (Toplock)
9	5312316	8	3/4" Flatwasher, Special Hardened

Note: Item 2 is only welded on the LH Frame Rail. Item 3 is welded to both LH and RH Frame Rails from the factory. Item 4 will be welded on during assembly procedures. Do not weld on any components until instructed to do so, then check instructions carefully because some components are only to be tack welded then removed to be welded later.

Frame Rail Installation 2 WD & 4 WD

Fuel Tank Protection Plate Modification:

1. Remove Tank Protection Plate.

Some, not all tractors will have a fuel tank Guard bolted up under the bottom of the tank (This is a New Holland Tractor Option not an Alamo Industrial Option) . This Guard is held on with the four tank strap bolts from under side. There are two bolts at the rear and two bolts at the front. The tank WILL NOT have to be removed. This plate will be shaped the same as the tank (See Figure 2) , Note Figure 2 guard is shown upside down from way it mounts under Fuel Tank.

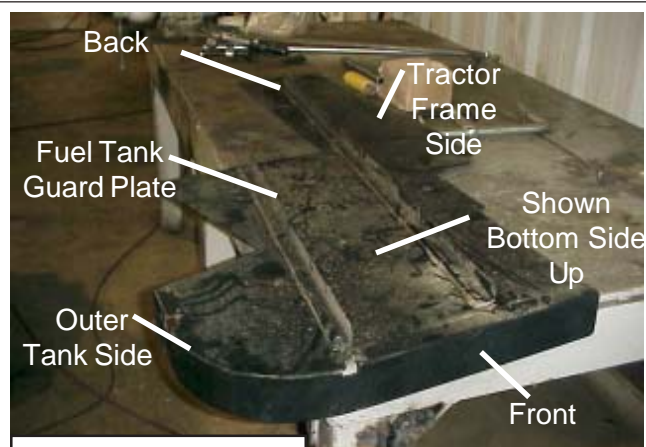


Figure 2

2. Modify Tank Guard. There are two reinforcement braces (made of Angle Iron. Welded to the bottom of the guard. The inner brace (angle iron closest to the tractor) will interfere with the Left Hand Frame Rail. The Angle Iron will have to have 12 inches cut off and removed. (See Figure 3) CUT ONLY ANGLE IRON BRACE not Fuel Tank Guard. Reinstall the Fuel Tank Guard back up under Fuel Tank and tighten mounting bolts. Shown below in figure 3 & 4 are the four guard mounting bolt holes.

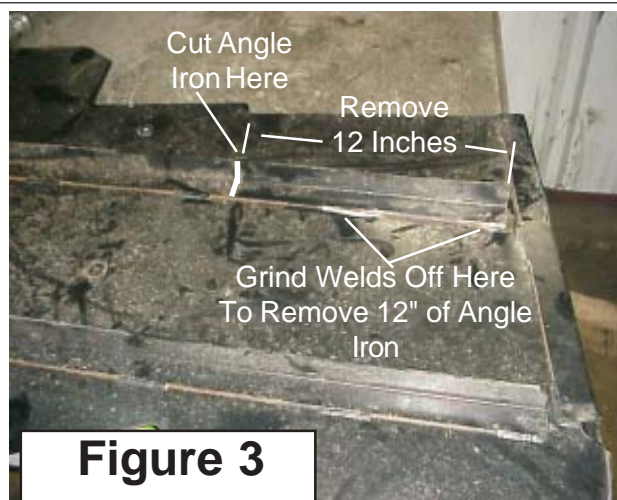


Figure 3

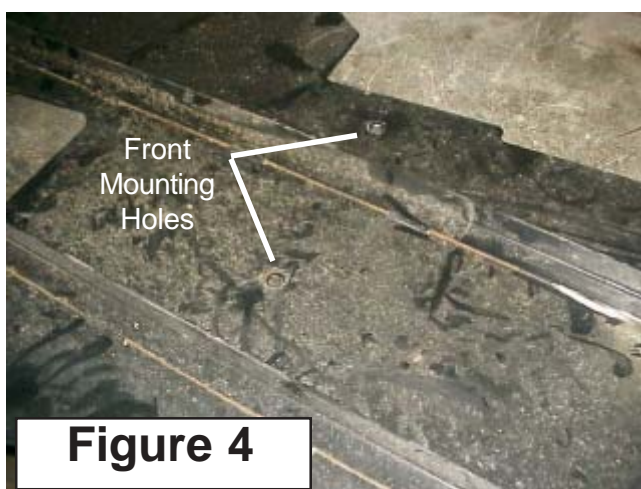


Figure 4

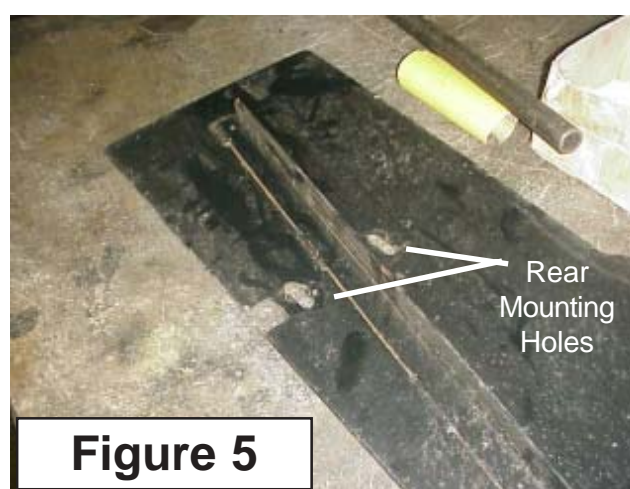


Figure 5

Frame Rail Installation 2 WD & 4 WD

Frame Rail Pre-Assembly: (continued)

1. Lay Out Components in Display. It is helpful to lay out the component in as neat a display as possible. Lay out the Bolts according to size and length. Lay out the Nuts and washer by size. This will allow you to see how many of each part as you use them and help to identify any missing parts. (See figure 6)

2. Front Frame Rail Supports. These Frame Rail Support Mounts (part # 02980667 LH & 02980668 RH). These should already be mounted from previous Assembly of Front Pump and Drive Shaft Components. It is easier to mount the Pump Drive Shaft before these Frame Supports are installed. If you are mounting the Frame rail supports now, there are important things to remember. There are 4 bolts that go into Tractor Frame. The Tank Support Rails connect to the Frame rail supports, these are the three bolts shown to the front. These will be mounted when the Frame Rail Supports are installed (See Figure 7).

3. Install the frame rails to the tractor. Install Support Plate (P/N 02725900) on top of Frame Rail support, one on the LH and one on the RH Side (see Figure 1, 7 & 8). Install the four retaining bolts into the support plates now, do not tighten them now only snug fit. LATER the frame rail will be welded to these support plates BUT NOT AT THIS TIME (See Figure 8)

4. Lay out frame rail, mount tubes, bolt and other components that are to be used in the installation of the frame rails. (See Figure 9)



Figure 6

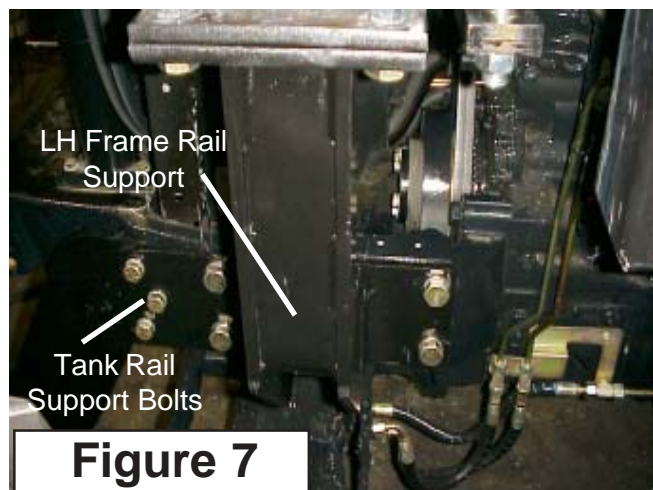


Figure 7

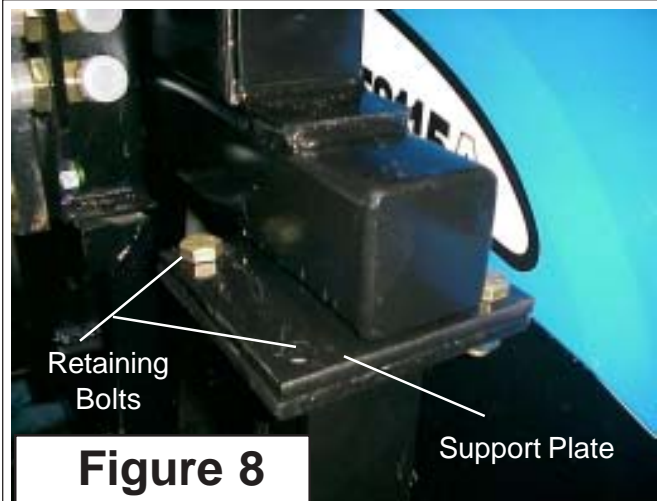


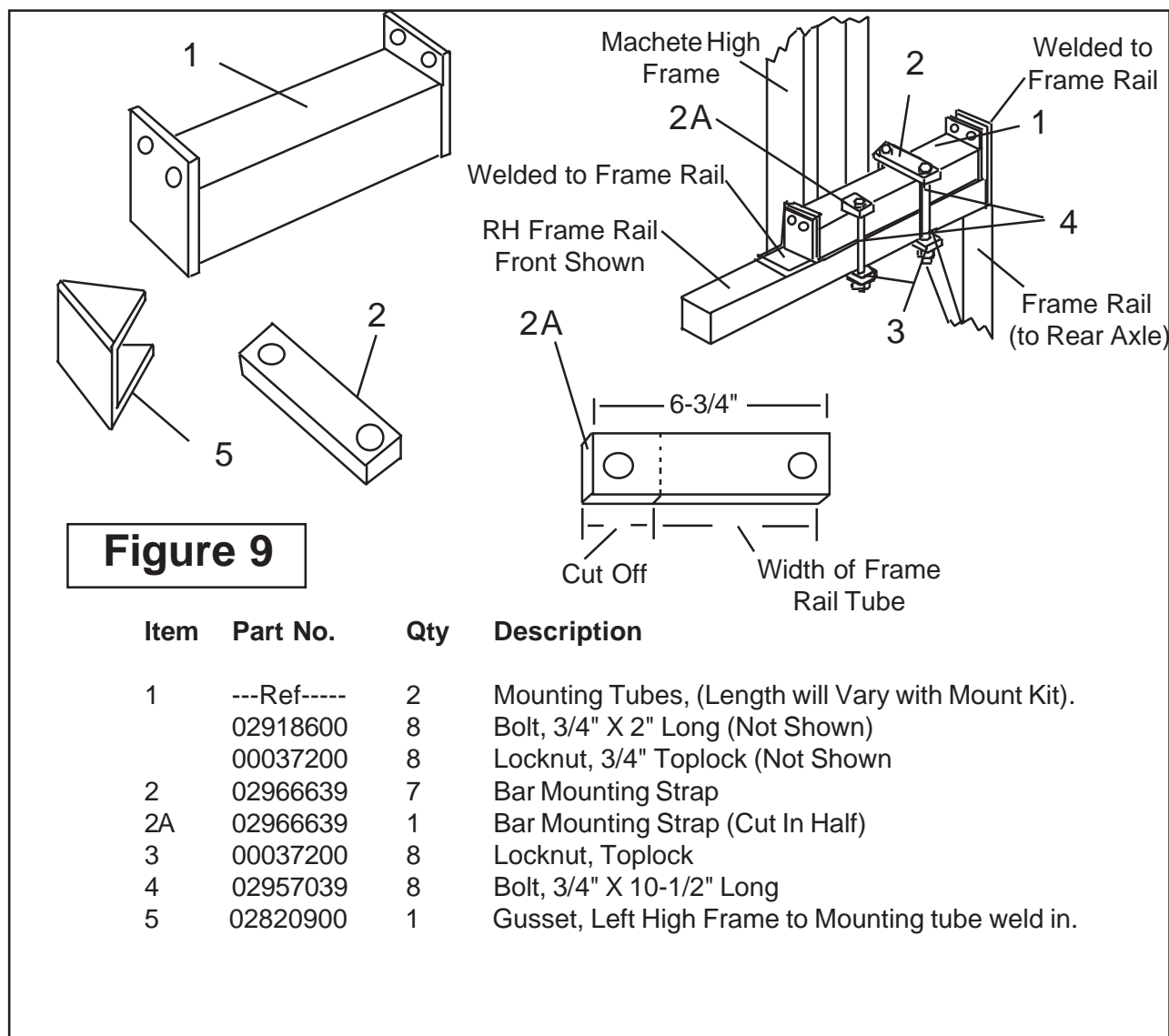
Figure 8

Frame Rail Installation 2 WD & 4 WD

Frame Rail Pre-Assembly: (continued)

High Frame Mounting Tube Components. (See Figure 7 & 8) These Components are to be laid out and will be tack welded to frame Rails and High frame during Pre-Assembly Process. Locate and ID these Parts for later installation. Remember DO NOT Weld any components until instructed to do so. Item 2-A on some models will have to be cut so it can be welded to mounting tube and frame rail.

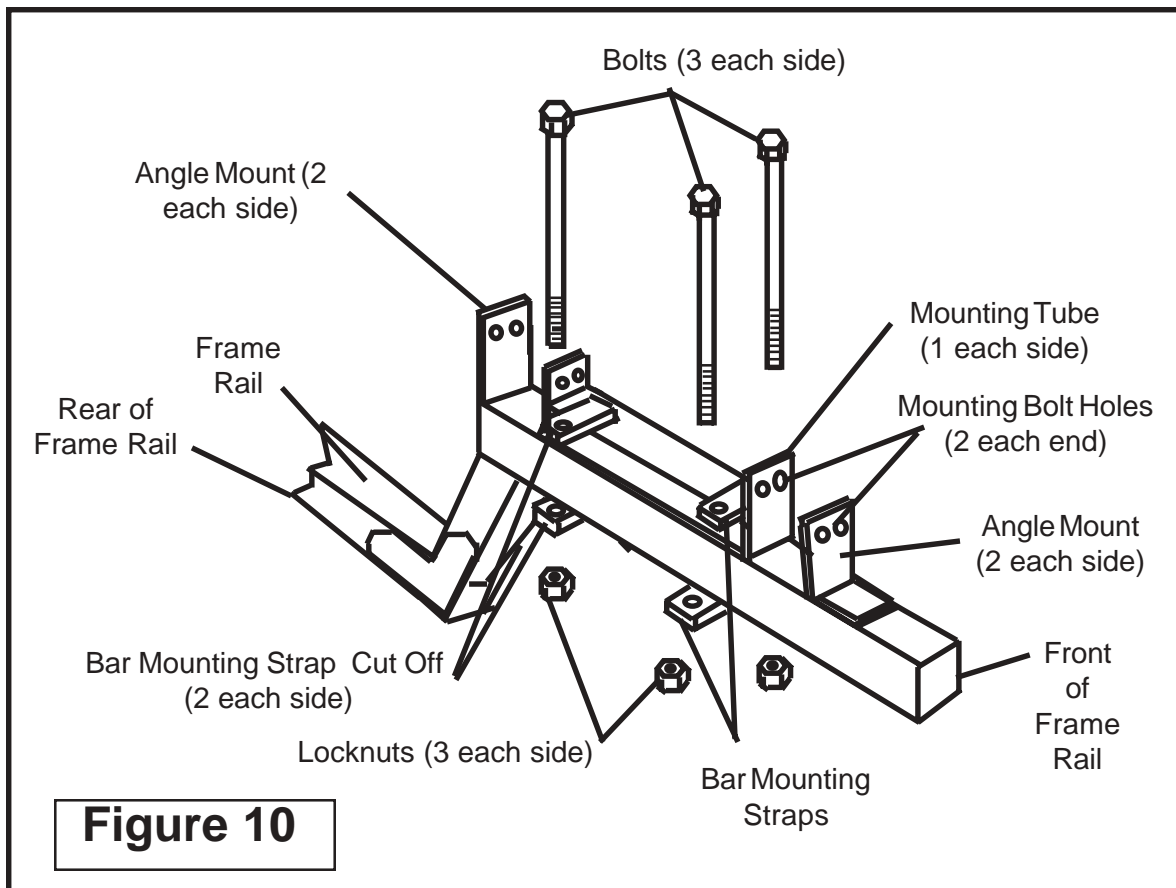
High Frame Mounting Tube Components



Frame Rail Installation 2 WD & 4 WD

Frame Rail Pre-Assembly: (continued)

High Frame Mounting Tube Components. (See Figure 10) These Components are Sitting in approximate position of assembly to illustrate where they are to be when tack welding them. Space is left between them for Illustration only, they will be closer together when assembled. Bolt the Mount Tubes to the frame rail using the four bolts that bolt the plates of the mount tube to the plates welded to the frame rail (See Figure 11). **DO NOT** do any welding at this time. Also See Figure 5 on previous Page.



High Frame and King Post Frame Sub-Assembly. (See Figure 11) The High frame will come with the King Post Sub-Assembly Bolted to it. The King Post Sub-Assembly bolts to High Frame; these Bolts must torque to 375 ft. lbs. These should be Torqued when received from the factory. The Lift Cylinder will not be assembled to King Post; it is shown in figure 5 for Illustration and will have to be mounted later after final installation of High Frame. The 2 Wheel drive and 4 Wheel Drive High frames are different and will not interchange In Figure 5 the 2 Wheel drive High frame is shown, the 4 Wheel drive High Frame has the King Post Mounting plate welded higher up on frame than shown here. **DO NOT** try to use a 2 Wheel drive Frame on 4 Wheel Drive Tractor or vice versa, it will not work.

Frame Rail Installation 2 WD & 4 WD

Frame Rail Pre-Assembly: (continued)

5. Lay Out Components in Display. It is helpful to lay out the component in as neat a display as possible. Lay out the Bolts according to size and length. Lay out the Nuts and washer by size. This will allow you to see how many of each part as you use them and help to identify any missing parts. (See figure 6)

6. Front Frame Rail Supports. These Frame Rail Support Mounts. These should already be mounted from previous Assembly of Front Pump and Drive Shaft Components. It is easier to mount the Pump Drive Shaft before these Frame Supports are installed. If you are mounting the Frame rail supports now, go back to the beginning of this section for mounting instruction.

7. Support Frame Rails while mounting them. Use a hoist to lift and fit Frame Rails. Use a floor jack to support the rear of the (See Figure 12) while you bolt them to the rear axle of the tractor. The front of the frame rails will rest on the front mounting support plates that are bolted to the front frame rail support. (See Figure 13)

8. Rear Three Point Stabilizers. These will be disconnect when mounting Frame Rails but will be bolted back on with frame rails. (See Figure 14)

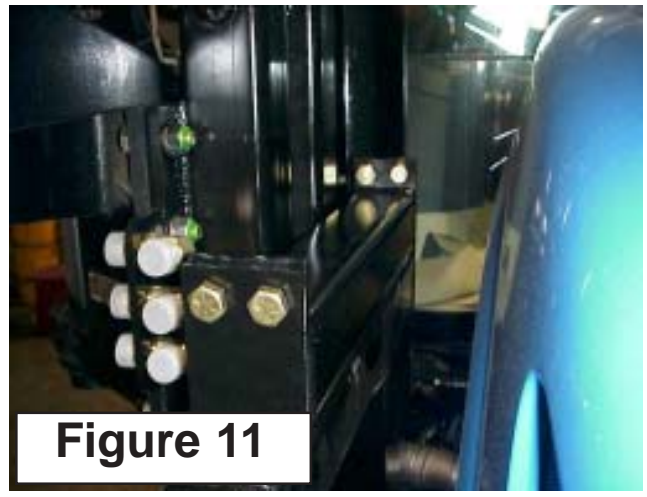


Figure 11



Figure 12

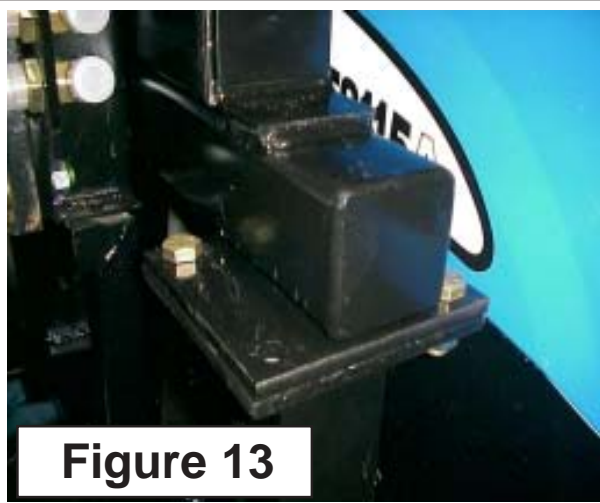


Figure 13

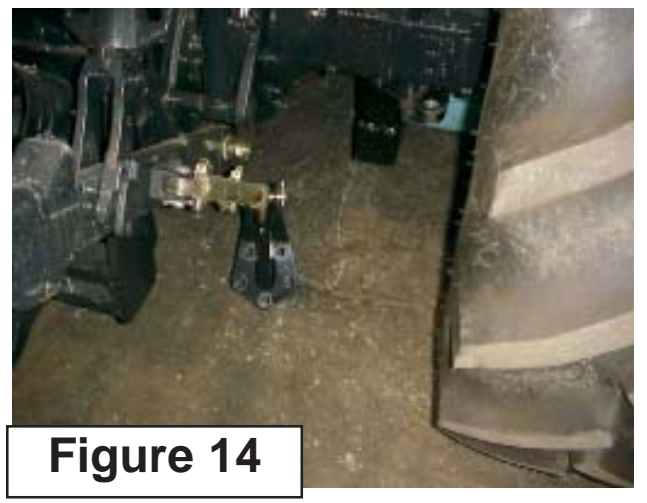


Figure 14

Frame Rail Installation 2 WD & 4 WD

Frame Rail Pre-Assembly: (continued)

9. Install Crossmember between frame rails. Install the cross member Tube (P/N 02980697) to the frame rails underneath tractor. There is no welding required to install this crossmember. When installing the four 3/4" NC X 4-1/4" Gr. 8 bolts (P/N 02980730), it will also be REQUIRED that a hardened flat washer P/N 5312316 (3/4") be used on top and bottom of crossmember (See Figure 15). DO NOT tighten these four bolts at this time. The holes in the mounting straps for crossmember are slotted, this is to allow the frame rails to be moved around to enable alignment.

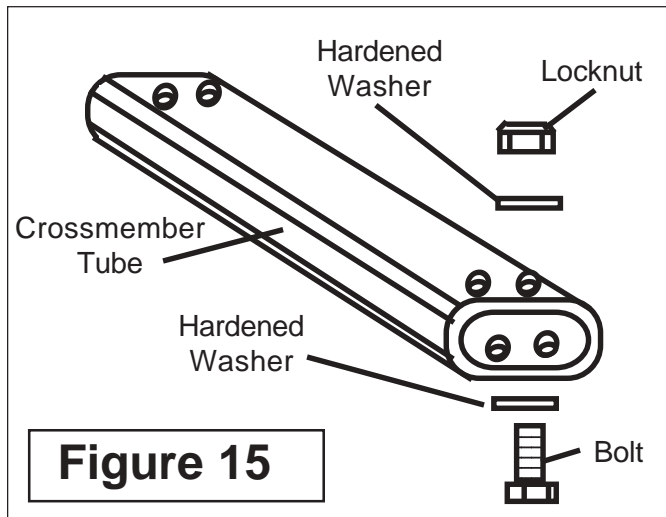


Figure 15

10. Bolt the frame rails to the rear axle of tractor.. With the frame rails sitting on the front support plates (See Figure 12) and the rear of the frame rails supported with a floor jack (See Figure 12). Note if wanted a large C-clamp can be installed at the front of the frame rail and support plate to help hold it, it is recommended that the frame rail remain supported by the hoist till they are bolted to the rear axle.. From the under side of the tractor the frame rail will bolt the rear axle of the tractor (See Figure 17). The RH Side will also have the Boom Rest and Boom Rest Support weldment attached to it (See Figure 18). This brace bolts to the top of the axle and is the top axle strap for the RH side, The Left hand side will have an axle strap (See Figure 1)

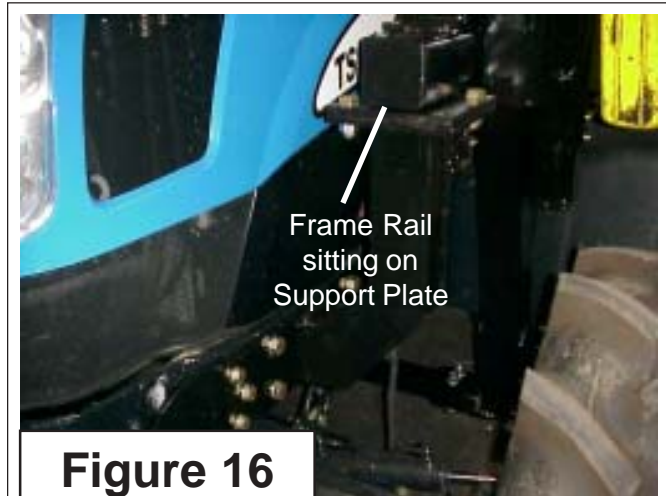


Figure 16

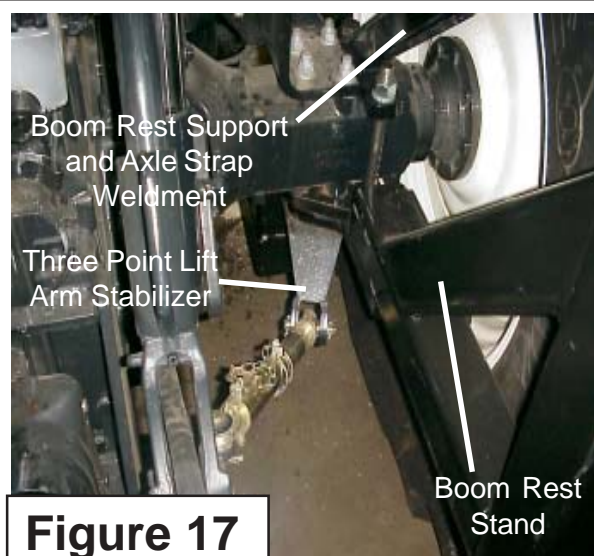


Figure 17



Figure 18

High Frame Installation 2 WD & 4 WD

High Frame & King Post Sub-Asy

NOTE: 2 Wheel Drive High Frame Shown, the 4 Wheel Drive frame looks the same except mounting of King Post and Bracing is higher up. The 2 Wheel Drive and the 4 Wheel Drive High Frames will not interchange.

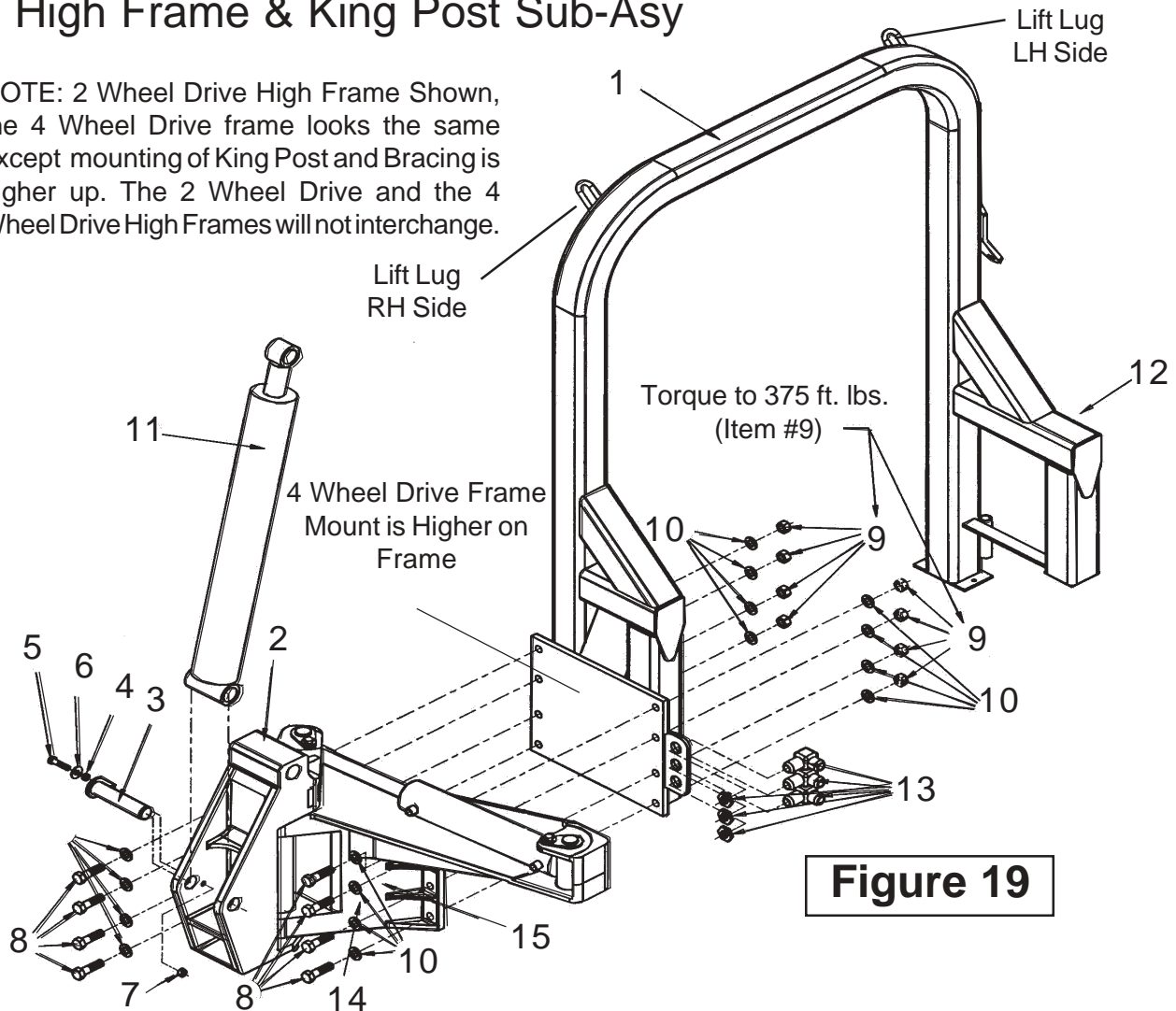


Figure 19

Item	Part No.	Part No.	Qty	Description
	02978449	-----	-	Frame Asy. 2 Wheel Drive (Shown)
	-----	0297845	-	Frame Asy. 4 Wheel Drive
1	02978447	-----	1	Frame Weldment, 2Wheel Drive (Shown)
	-----	02978448	1	Frame Weldment, 4 Wheel Drive
2	02978000	02978000	1	King Post Frame Sub-Asy
3	02978461	02978461	1	Weldment, Pin
4	02975596	02978896	1	Tube Spacer
5	00013300	00013300	1	Hex Head Cap Screw 1/2
6	00002700	00002700	1	Flatwaser
7	00001800	00001800	1	Locknut
8	02960521	02960521	8	Hex Head Capscrew 3/4
9	00037200	00037200	8	Locknut
10	5312316	5312316	16	Washer 25/32
11	02968841	02968841	1	Lift Cylinder Asy.
12	00725746	00725746	1	Decal, Spanish Translation
13	02742500	02742500	3	Elbow
14	02962765	02962765	1	Decal Multi-Hazard
15	02965262	02965262	1	Decal Hose Burst

High Frame Installation 2 WD & 4 WD

High Frame Installation:

1. Lifting & Lowering High Frame. This will need to be done with a hoist. Make certain that you have installed and bolted the two mounting tubes (See Figure 10). DO NOT Attempt to lower the high frame onto tractor without someone to help you guide it down to prevent it from swinging and hitting something that will cause damage to tractor. (See Figure 21)
2. Check Tractor Hood Opening distance. With the open (See Figure 22) check the clearance between the hood and high frame. Check the Air Cleaner element (See Figure 23), make certain that the hood is open far enough that this air cleaner element can be removed for servicing. If these check OK go on to next step.
3. Level High frame. High frame must be as level as possible in order for the cutter head to be level. Using magnetic levels mount one on the king pin post pointing toward the front of the tractor (See Figure 24). This will level frame front to rear. Install another magnetic level on the top of the High frame (See Figure 25), this will level High frame left to right. When High frame is level check hood clearance for opening and make certain that tractor air cleaner can be removed for service or be replaced.



Figure 20



Figure 21

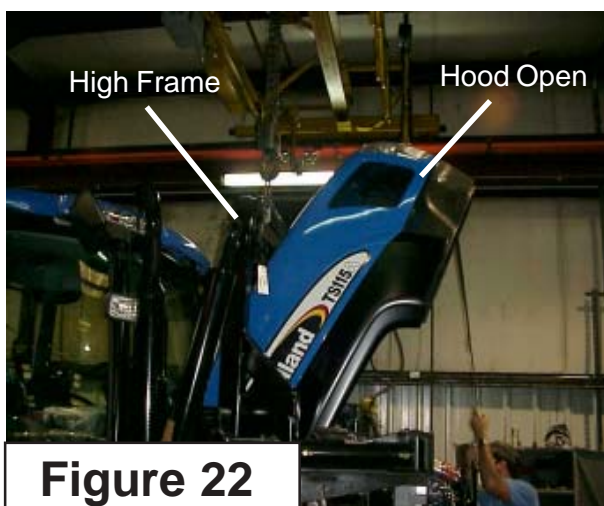


Figure 22



Figure 23

Tractor Air
Cleaner

High Frame Installation 2 WD & 4 WD

High Frame Installation: (continued)

4. Check Mounting Tubes. Make certain the mounting tubes are installed on frame rails and bolted down snug. (See Figure 26)
5. Clamp Down High frame. Using large C-Clamps clamp the high frame to the frame rails (See figure 27 & 28), Do Not remove over head hoist. Recheck the hood and tractor air cleaner for clearance. Recheck to make certain the high frame is still level, make these check before continuing on from here.

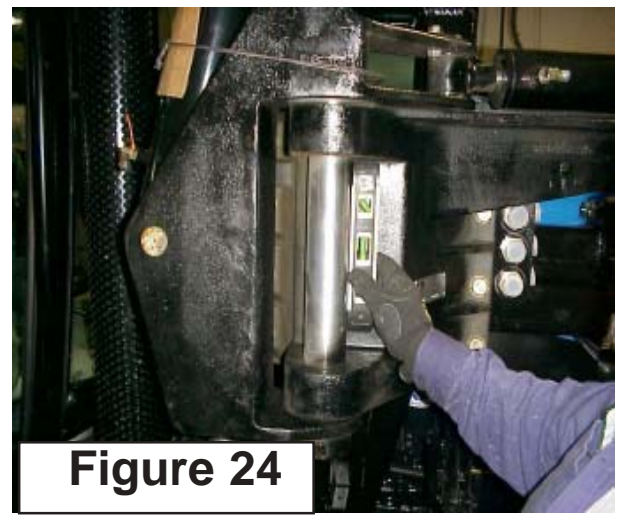


Figure 24



Figure 25

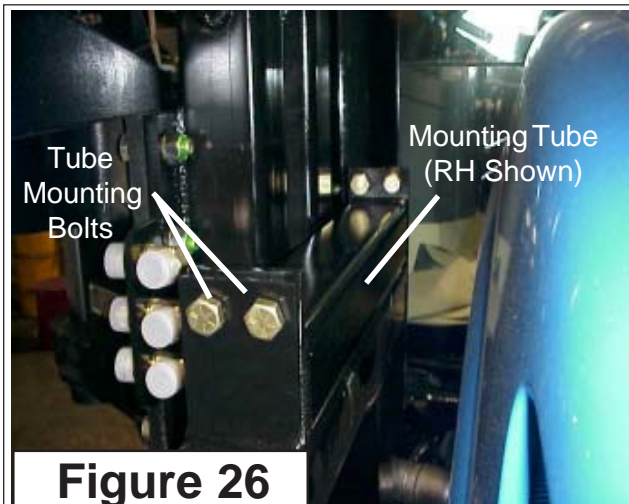


Figure 26



Figure 27



Figure 28

High Frame Installation 2 WD & 4 WD

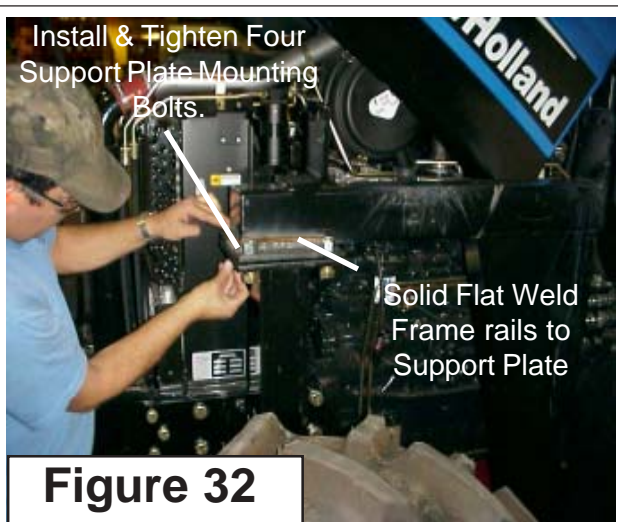
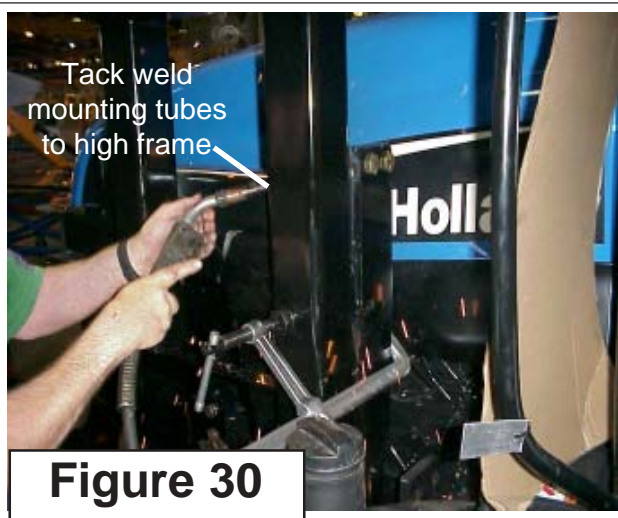
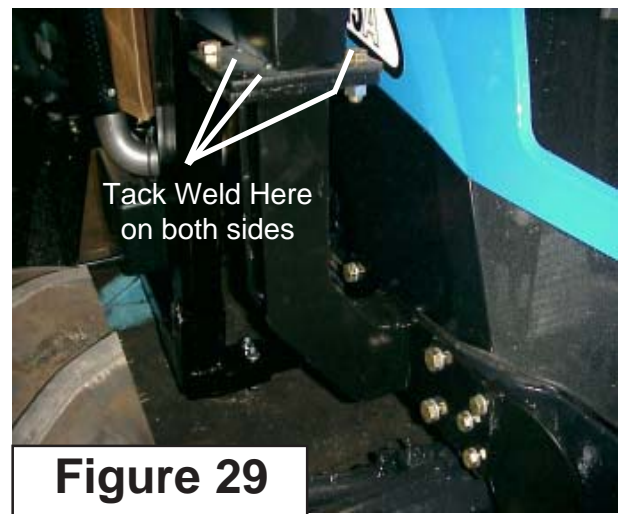
High Frame Installation: (continued)

6. Check All Clearances of Hood to High frame & Tractor Air Cleaner. Before beginning the next step make certain that you have the clearance needed for these items. DO NOT tack weld any items until these have been checked.

5. Tack Weld Frame rails to Support Plates. Tack Weld the frame rail tubes to the front support plates (See Figure 29). Tack weld on the RH side as shown and on the LH side also.

6. Tack Weld High Frame to Mounting Tubes. The High Frame needs to be tack welded to the mounting tubes. (DO NOT tack weld mounting tubes to frame rails). The high frame will need to be tack welded in a number of places on both the LH & RH side. These tack welds must be large enough and strong enough to not let the mounting tubes move from high frame when it is lifted off frame rails. (See Figure 30).

7. Solid Weld Frame Rails to Front Support Plates. This can be done before the high frame is lifted off or after. If after make certain that these are tack welded secure so it will not move when high frame is removed. (See Figure 31 & 32).



High Frame Installation 2 WD & 4 WD

High Frame Installation: (continued)

8. Remove High Frame from Tractor for final welding. It is required that the High Frame be removed from tract to do the welding of the mount tubes to the high frame. Connect the overhead hoist to the high frame. There are lifting lugs welded to the top of the high frame to connect the hoist. These lugs are installed as to balance the high frame when lifted. Remove the four bolts on each side that bolt the mounting tubes to the frame rails. Make certain that you have someone to help you steady the high frame as it is removed to prevent it from swinging and hitting tractor. (See Figure 33)



Figure 33

9. Weld High Frame to Mounting Tubes. NOTE: Turn the high frame over and weld the bottom side first, THIS IS REQUIRED because you have the top side tack welded and no weld on bottom side of mount tube. If you weld the top first the tube will pull at weld and mis-align itself. SO ALWAYS weld bottom of mount tube first. (See Figures 34, 35 & 36) The Mounting tubes are to be welded completely all the way around to High Frame. These welds must be flat welds, this will require that the high frame be turned over so the bottom is welded first and completely, then turned over and the top welded. The ends of the mount tubes need to be welded to the high frame. There is a gusset (See Figure 34) that must be welded to the high frame and mounting tube on the left hand side, This is to give more weld surface where the mounting tube and high frame weld together. (See Figure 34, 43 & 46)

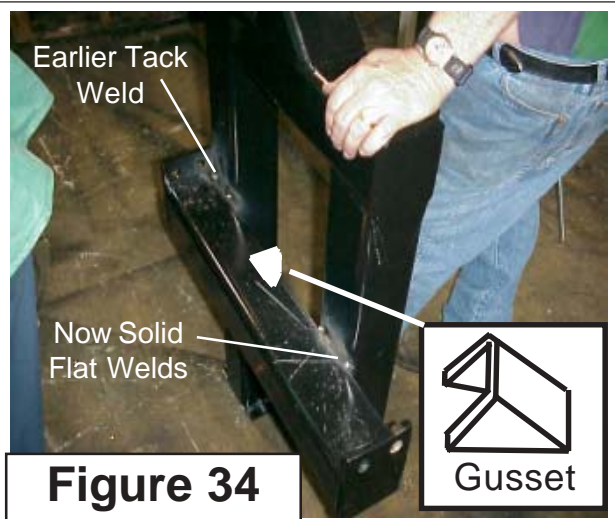


Figure 34

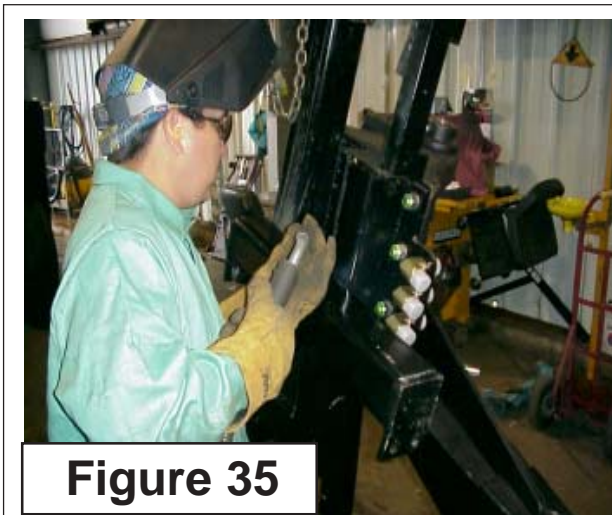


Figure 35



Figure 36

High Frame Installation 2 WD & 4 WD

High Frame Installation: (continued)

10. Touch Up Paint. After the welding is done clean the area of the welds and touch up the paint. This will be easiest done now before the high frame is reinstalled. (See Figure 37). Now is also a good time to touch up paint on frame rail support plates that were welded (See Figure 32).

11. Reinstall the High Frame back onto the frame rails. Lower the High frame back down onto the frame rails. Use someone to guide the high frame so it does not turn and hit the tractor (See Figure 38). Lower the High frame down until the mounting tubes are resting on the frame rails, using the hoist to help move the high frame to align the four mounting bolts for the mounting tubes to the frame rail (See Figure 39). Install and tighten the four mounting bolts to mount the mounting tubes to the frame rails (See Figure 40) Note: there are four mounting bolts on each side, two in front and two in the rear. (Leave the hoist connected to the high frame for now. Go to the rear of the tractor to make certain that the frame to rear axle bolts are all installed and tightened down. Make certain the axle strap is installed on the left hand side and the boom rest support/ axle strap is installed on the RH Side. (See Figure 41 & 42)



Figure 37



Figure 38



Figure 39



Figure 40

High Frame Installation 2 WD & 4 WD

High Frame Installation: (continued)

12. Install High frame Mount Tube Clamp Straps & Bolts. Install the clamp bolts & straps that clamp the mount tubes to the frame rails, When tightening these you will need to tighten them evenly from side of strap to side of strap to keep that straps straight. (See Figure 43 & 44). The Straps on the RH Side in some applications will have to be cut and welded to the frame rail and the mounting tube, this is because the way the king post mount is there may not be room for the entire strap. If these straps have to be cut and welded make certain that a good strong weld is used .

13. Recheck All Bolts and all Welds. Recheck all the mounting bolts, inspect all the welds to all the components. Inspect the mounting at the rear tractor axle. Check the Boom rest mounting and check the Axle strap on the left hand axle, check the axle strap / boom rest support weldment on the RH side. (See Figure 45)

14. Remove hoist from High frame. If everthing is checked and is correctly installed the hoist can be removed from the high frame. Keep the hoist close by as you will neet it again to install the boom.



Figure 41



Figure 42

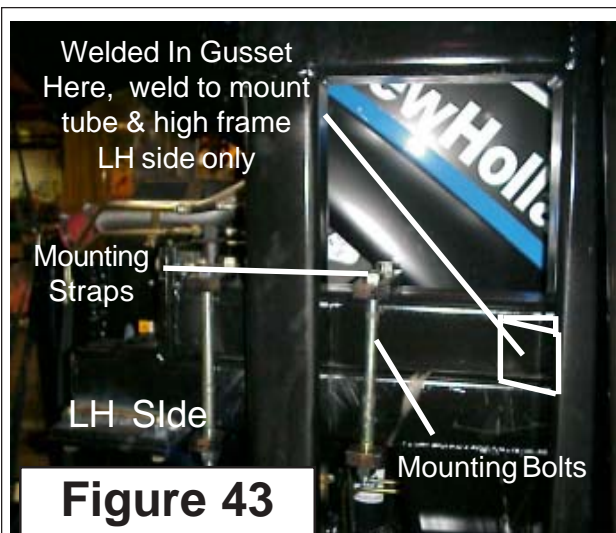


Figure 43

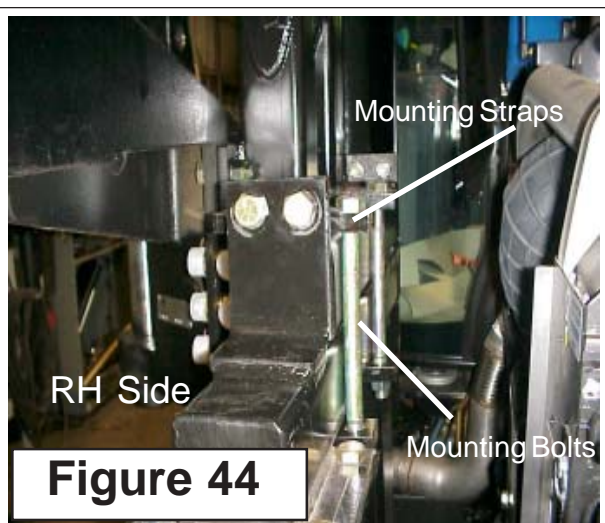


Figure 44

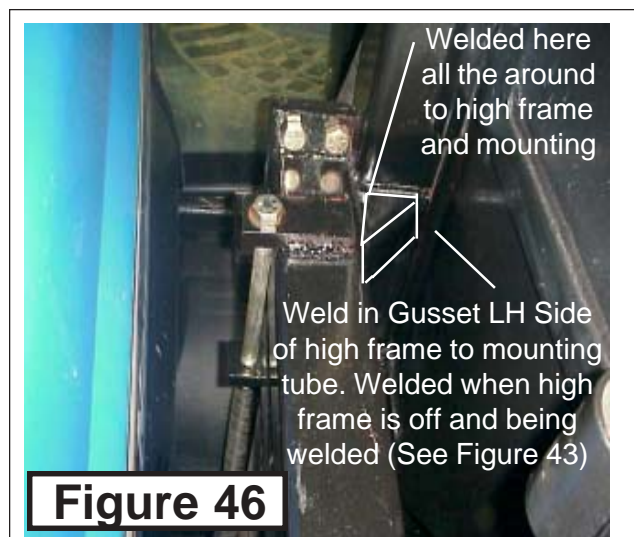
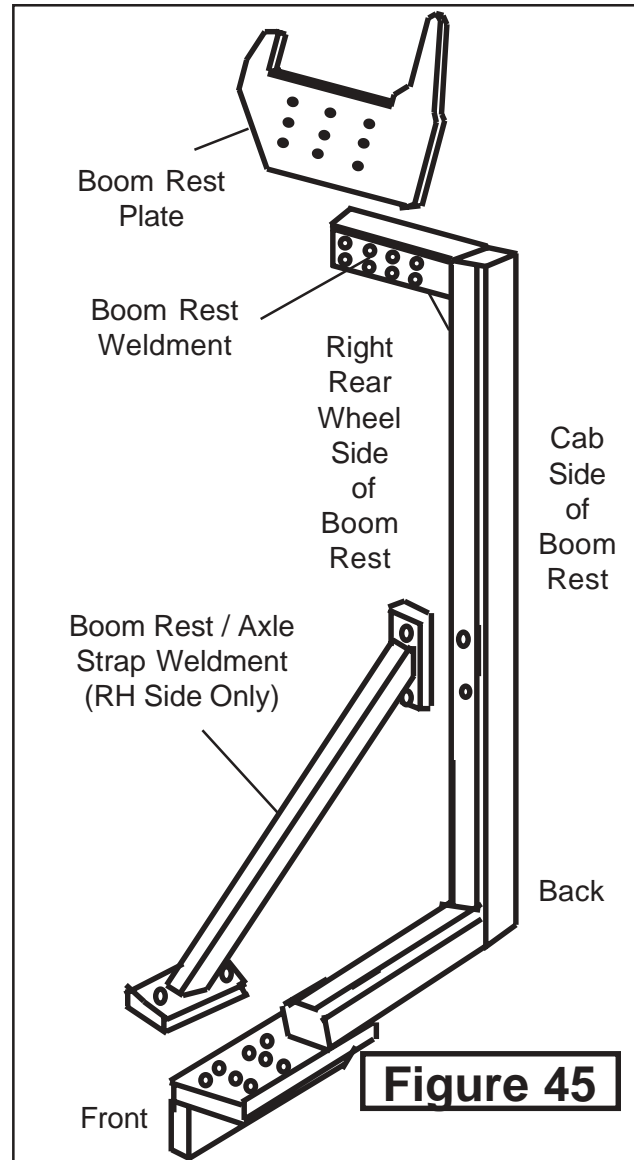
High Frame Installation 2 WD & 4 WD

High Frame Installation: (continued)

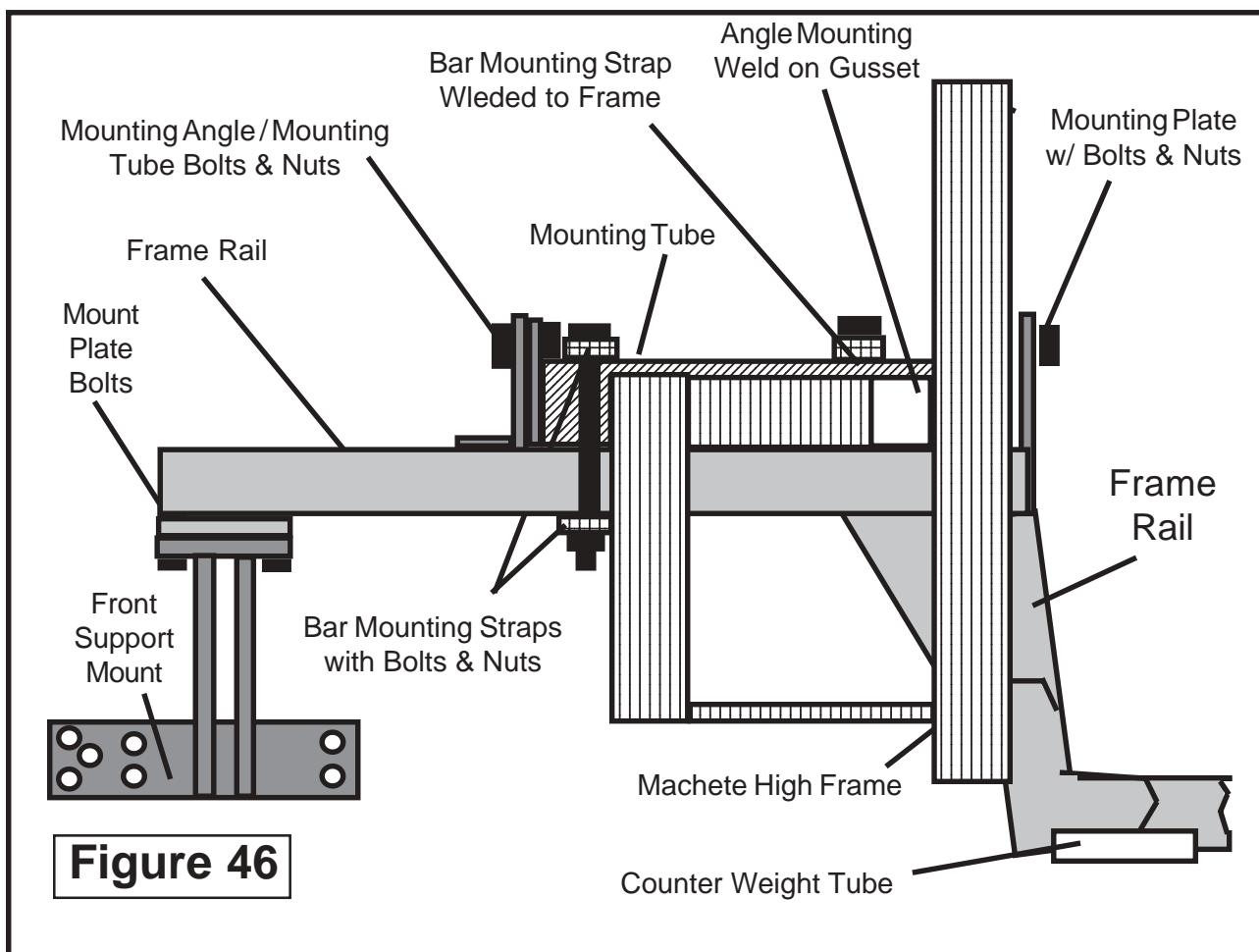
15. Boom Rest And Boom Rest Supprt Wledment. The Boom Rest and the boom rest supprt weldment should be installed and tightened already, If not install it now but if you do be certain to support the frame rails whith jack and jack stands, DO NOT remove any bolts from frame rail mount unless these supports are in place.

16. The Boom Rest Plate. The boom rest plate bolts to the boom rest weldmnt. It is adjustable by moveing the bolts to different holes. Adust boom rest plate as far outward as possible and then adjust back in as required at final assembly.

17. Basic View of Front Supports, Frame Rails, Mounting Tube & High frame. Shown in figure 47 is a basic view of what the assembly should look like when done. This is fro reference only and not necassarily the exact drawing.



High Frame Installation 2 WD & 4 WD



Section 10

MACHETE

New Holland Tractor TS-100A, 115A, 125A & 115A

CWT Weldment Installation

Frame Rail Installation 2 WD & 4 WD

Counter Weight Installation:

1. Counter Weight (CWT) Installation. The Counter weight (**See Figure 1 & 2**) mounts on the LH side Frame Rail with a Support Rod running up to a Bracket that welds to the High Frame. The Bottom Step will have to be removed before counter weight can be installed. The Bolts must be installed as shown with the Locknuts to the inside. Installing the Bolts this way will make them easier to tighten up (**See Figure 1 & 3**). Install both bolts as shown (**See Figure 28**). Snug the Bolts, don't tighten them yet.

2. Level Counter Weight (CWT). Use a Floor Jack to support and level counter Weight after Hinge Bolts have been installed (**See Figure 4**). Use a Framing Square to align the CWT with the High frame (**See Figure 5**).

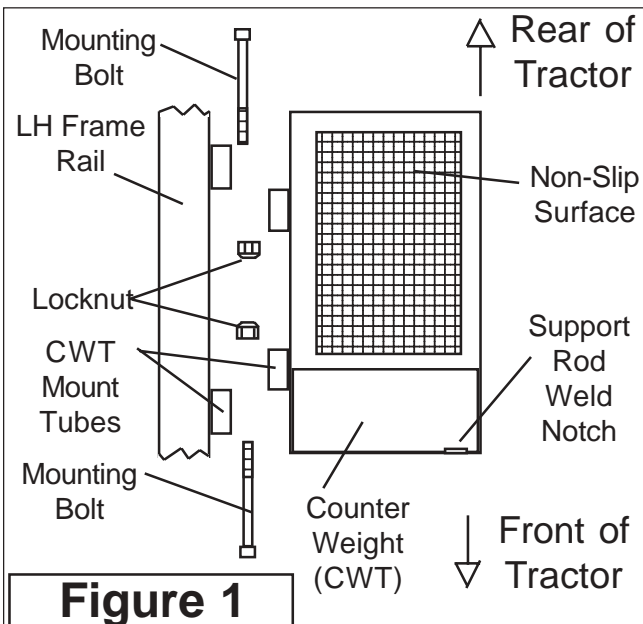


Figure 1

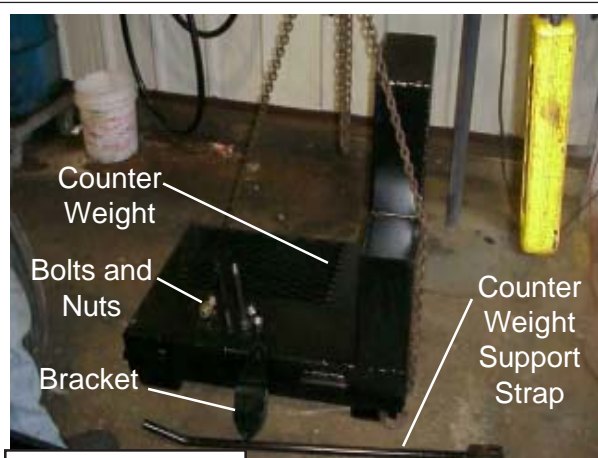


Figure 2

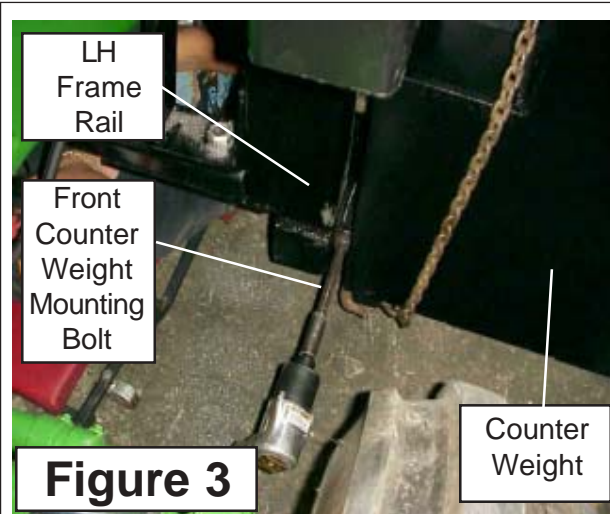


Figure 3

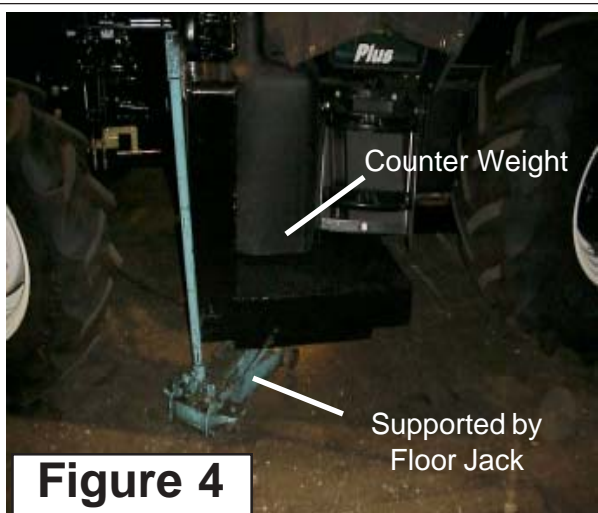


Figure 4

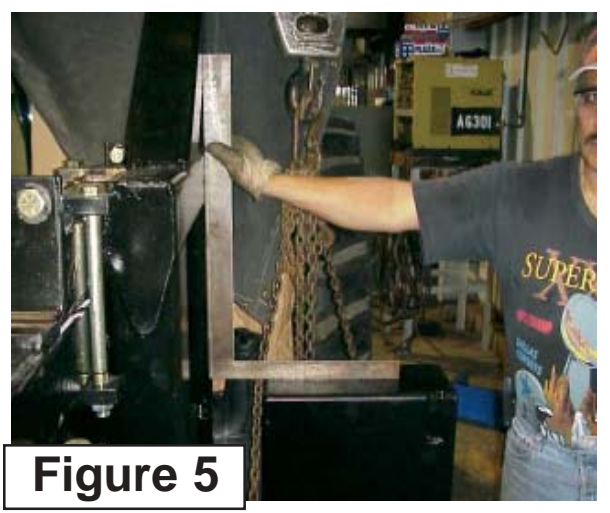


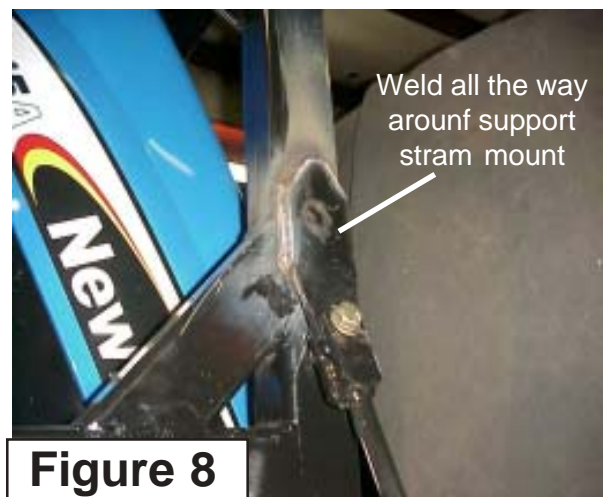
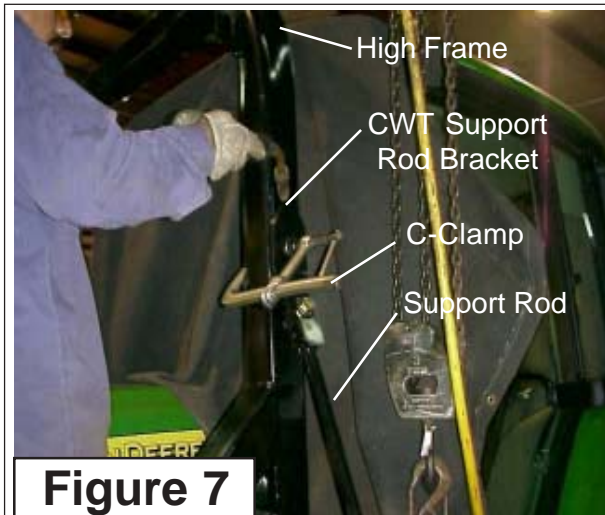
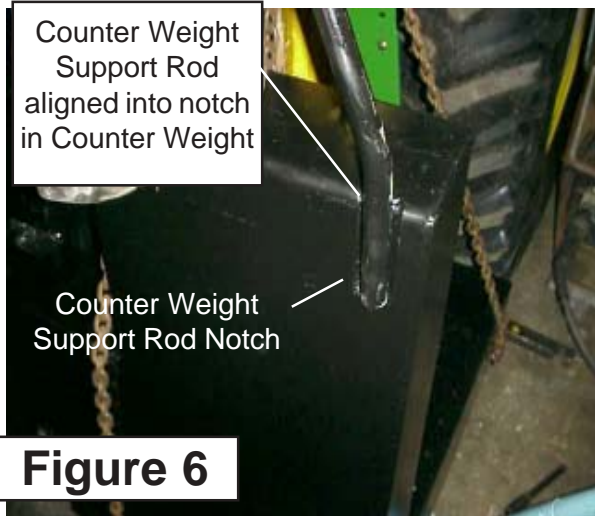
Figure 5

Frame Rail Installation 2 WD & 4 WD

Counter Weight Installation: (continued)

3. Counter Weight (CWT) Support Rod Installation. The clearance between the counter weight and fuel tank must be checked, the tank should not touch the weight (See Figure 9) The Counter weight Mounting Bracket will Connect to the High Frame with a weld on Bracket. (See Figure 8) The bracket has to aligned with the Counter Weight Support Rod Notch (See Figure 33). When aligned clamp the Bracket to the High frame on the LH outer side (See Figure 7).

4. Weld Counter Weight Bracket and Support Rod. Weld the Support Rod Bracket to the High Frame, weld up each side and over the top (See Figure 8). Counter Weight must be supported to where it is level during the entire mounting process. If it is not supported it will sag after being welded.



Frame Rail Installation 2 WD & 4 WD

Counter Weight Installation: (continued)

5. Counter Weight (CWT) Support Rod Installed. The Counter weight Mounting Bracket welded to the High frame, the Support Rod welded to the Counter Weight. Touch up the Paint where these were welded. Tighten the two long Allen Head bolts that hold the Counter Weight to the Frame Rail (See Figure 11 & 12). Remove the Hoist and install the decal on the side of the Counter Weight (See Figure 13 & 14)
6. Touch Up Paint on Counter Weight. Paint the places that you had to weld on frame and counter weight now before installing Decals.
7. Decals on Counter Weight. Install Decals on Counter Weight after you have touch up the paint. (See Figure 13 & 14).
8. Decals on Front Pump Cover. These Decal can be installed now if not on front cover already.



Figure 11



Figure 12

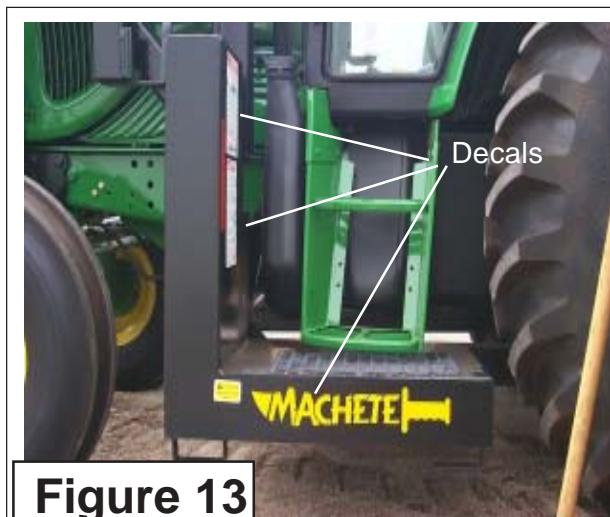


Figure 13



Figure 14

Section 11

MACHETE

New Holland Tractor TS-100A, 115A, 125A & 115A

Boom Installation

Boom Installation 2 WD & 4 WD

Boom Installation / Boom Hoses:

1. Hoses on Booms are shipped folded back inside Boom. Hoses must be pulled out and moved to clear, then routed in the end of Boom before installing Boom on the King Post (See Figure 1)
2. Lower Lift cylinder, The Lift Cylinder is shipped wired to the frame in the up position (See Figure 2). Before you cut this wire to lower cylinder the lower hose fitting in cylinder needs to be turned to where the elbow is pointing up the tube toward the rod. When Lowering the Cylinder after you cut the retaining wire use caution, if cylinder is dropped to hard or fast it can break the elbow fitting off the cylinder.
3. Connect the hoses to Lift Cylinder. Connect the hoses to the lift cylinder, make certain to put the right color coded hose on the right end. See hose diagram for valve to determine color codes. (See Figure 3 & 4), Remove the plugs from the ends of the hoses. Put the hose ends into a clean container. The cylinders have oil in them from the manufacturing process that will need to be caught as cylinders are extended. (See Figure 3 & 4)
4. Extending lift Cylinder Lift Cylinder There are different ways to extend the cylinder outward, with a hoist or with a large pin inserted into the rod and hit with large rubber hammer (See Figure 4 & 5)

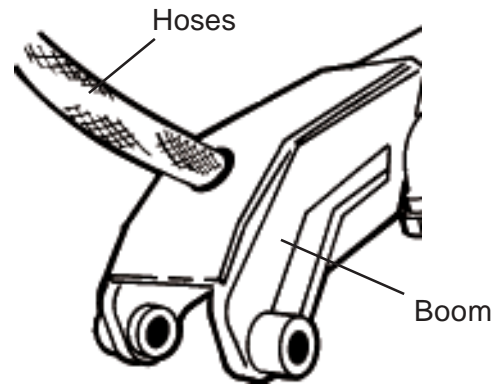


Figure 1



Figure 2



Figure 3

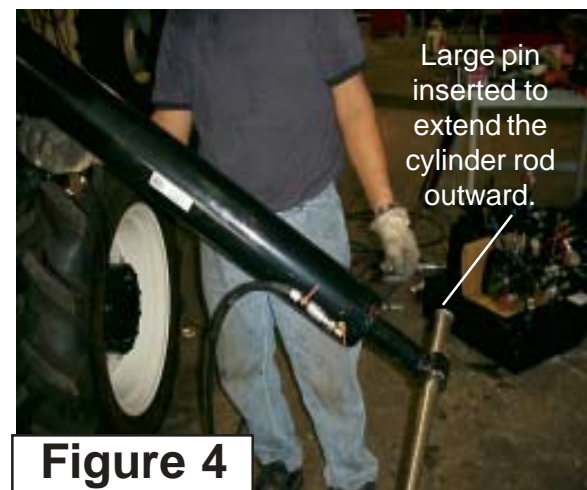


Figure 4

Boom Installation 2 WD & 4 WD

Boom Installation / Boom Hoses: (continued)

5. Remove Boom Mounting Pin. Remove the boom mounting pin by removing the cotter pin and slotted nut. Push pin out of boom (See Figure 6). Test fit the pin through tuning arm to make certain of a smooth fit.

6. Align Boom with King Post, use an over head hoist to lift the boom up and over the turning arm of king post (See Figure 7). Align the hole for the pin by sight. Insert the mounting pin, while the pin may fit a little tight it should not take excessive force to install it. If the pin came out easy enough in should go back in with the same amount of force (See Figure 8). Install slotted nut, do not over tighten this nut. Nut should be snug. Insert the cotter pin and bend it over. (See Figure 9)



Figure 5

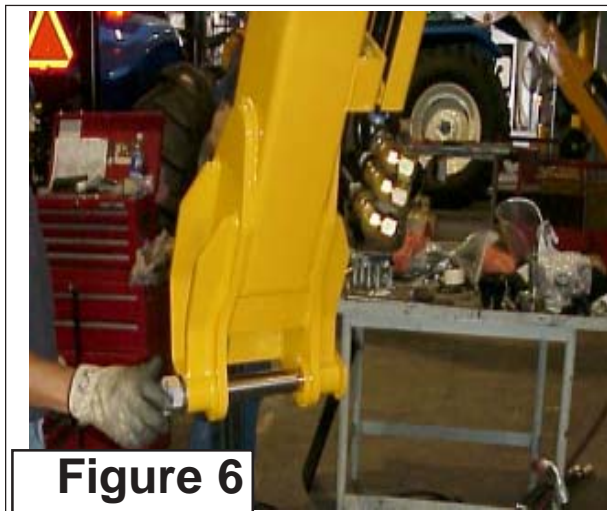


Figure 6

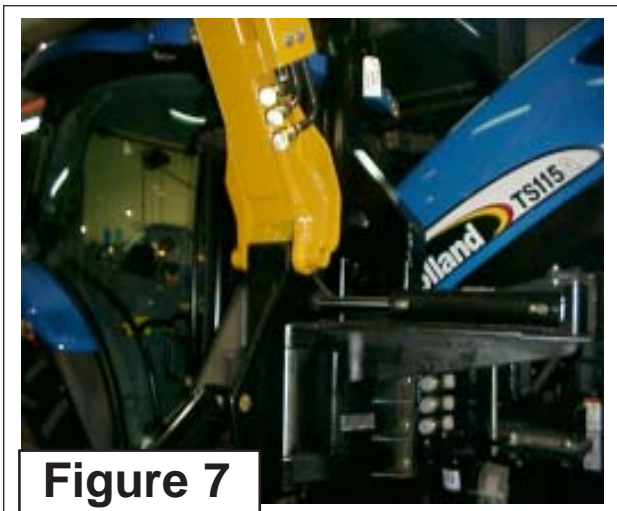


Figure 7



Figure 8



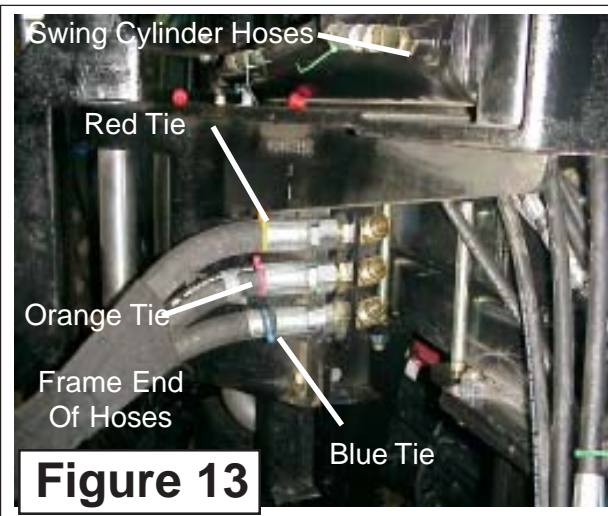
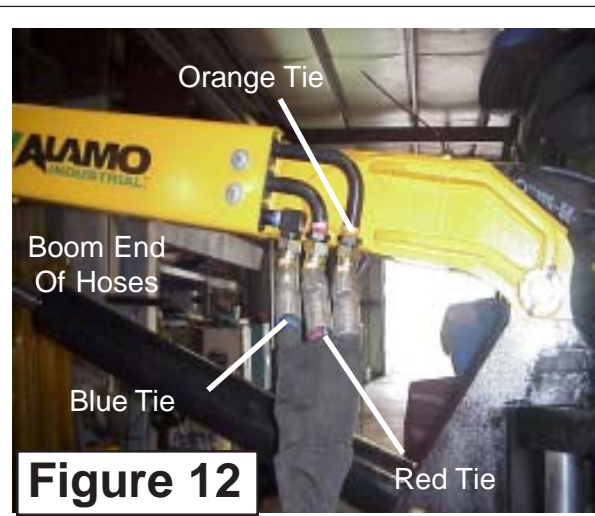
Figure 9

Boom Installation 2 WD & 4 WD

Boom Installation / Boom Hoses: (continued)

7. Connecting Rod End of Cylinder to Boom. Move the over head hoist to the head end of the boom and straighten boom out. Remove the cylinder mounting pin from Boom (See Figure 10). Align the rod end of cylinder with the Pin. Insert the pin through the hole, this pin should not take excessive force to install. (See Figure 11). You may have to extend or retract cylinder and you can use the hoist to align the pin by lifting or lowering the boom.

8. Install Swing Cylinder Hose. Install the swing cylinder hoses to Cylinder, match the color codes on hoses with diagram in valve section. All hoses should be hanging down the front of the frame rails. (See Figure 14).



Boom Installation 2 WD & 4 WD

Boom Installation / Boom Hoses: (continued)

9. Install Hoses from Frame to Pump.

Connect the hoses to the bulk head fittings on the frame, DO NOT connect them to the pump now. (See Figure 15).

10. Connect Hoses to Boom Cylinder Hoses.

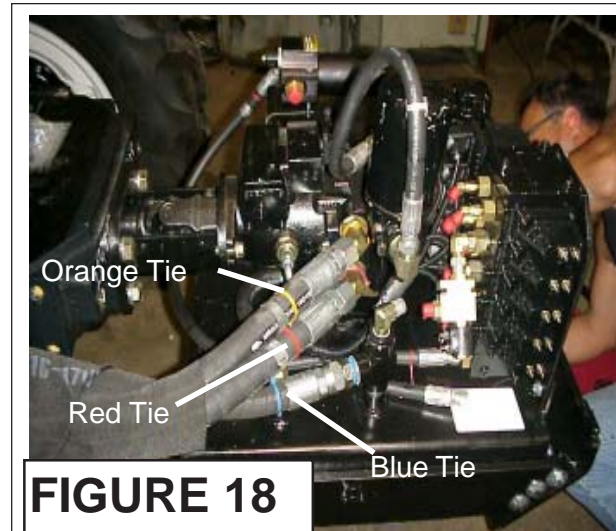
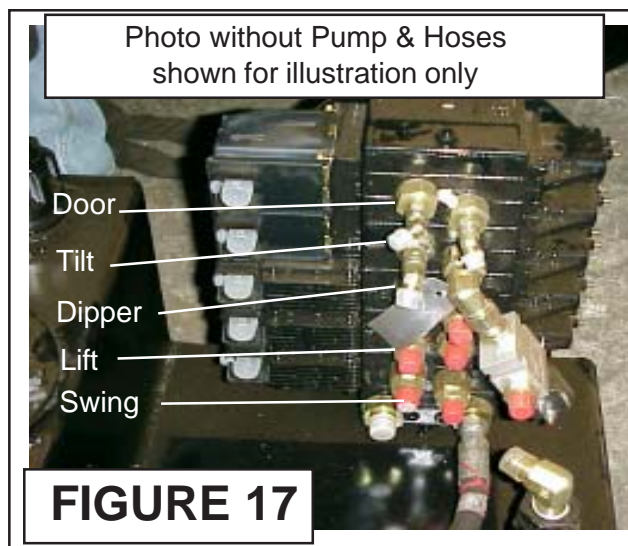
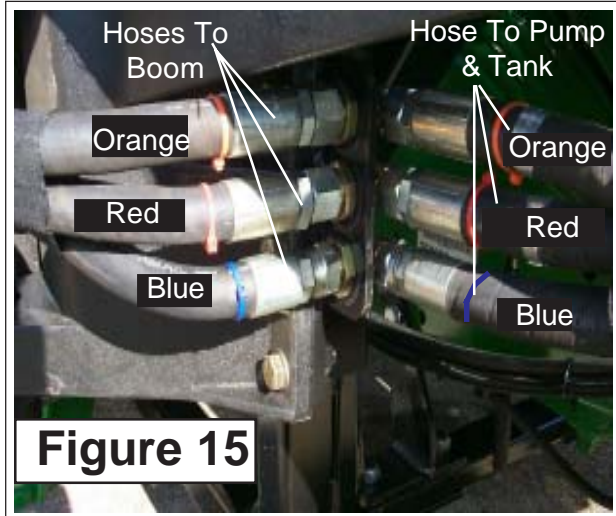
The boom cylinder hoses will use short extension hoses, these hoses will be color coded with plastic ties. Connect the hose matching these colored plastic ties as well as hose diameter. (See Figure 14). Let the hose hang down the front of the frame for now, do not connect them to the valve. (See Figure 14)

11. Install Sleeving over Hoses.

The Hoses connecting to the boom and frame will be in-closed in sleeving material. This sleeving should be slid up over hoses now before they are connected to pump or valve. Secure the sleeving using plastic ties around OD of sleeving (See Figure 16)

12. Install Hose to Valve, Pump & Tank.

Install the boom hoses to the valve using the color coded plastic ties on the hose schematics. (See Figure 17). Connect the large hoses from bulkhead fittings on frame to the pump and tank connections (See Figure 18)



Boom Installation 2 WD & 4 WD

Boom Installation / Boom Hoses: (continued)

13. Install Front Pump, Valve & Tank Cover.

There are two Weld on Hinges that half of the hinge welds to bumper and half of the hinge welds to the cover (See Figure 19)

14. Connect Rubber Hold Downs to Front Cover.

There are two rubber hold down straps, one on the LH side and one on the RH side. These are held in place with roll pins. Note the LH hold down strap is mounted higher than the RH hold down strap. (See Figure 20 & 21)

15. Oil Level Sight Gauge and Temperature Gauge.

On the Left Hand side of the tank is the Sight Gauge / Temperature Gauge combination. This gauge bolts into the side of the tank using sealing washers. This Gauge should be installed in the tank from the factory. (See Figure 20).

16. Operators Manual Cannister. This will be installed on the Right Hand side of the front cover (See Figure 21)

17. Front Cover Installed, Hoses Connected & Wire Harness Plugs Connected.

The front cover installed and opened, the hoses connected, the wire harness plugs connected. This should complete the assembly of the front of the tractor. (See Figure 22).

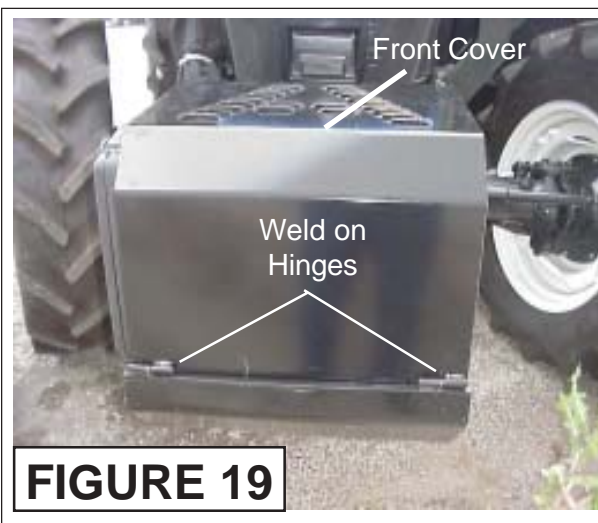


FIGURE 19

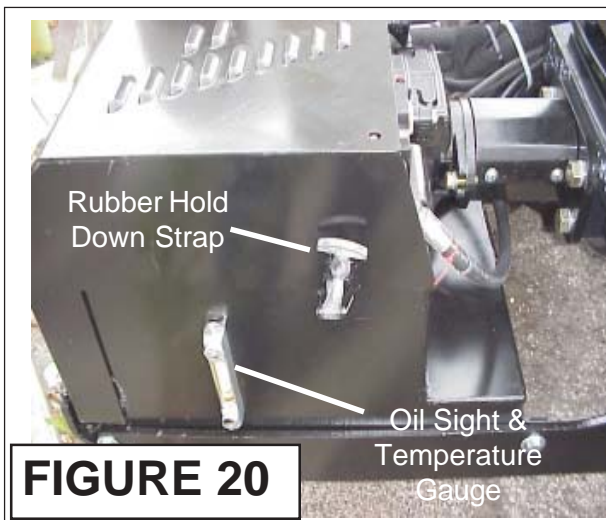


FIGURE 20



FIGURE 21

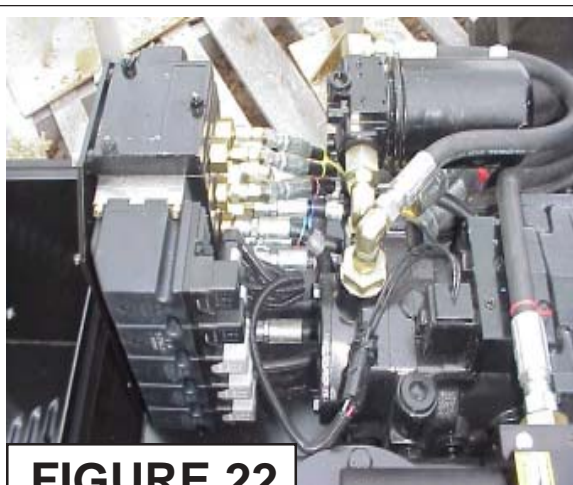


FIGURE 22

Section 12

MACHETE

New Holland Tractor TS-100A, 115A, 125A & 115A

Hose Connections

Hose Installation 2 WD & 4 WD

Boom Hoses / Tank Hoses:

1. Install Hose Fittings Through Frame. These are 90 deg bulkhead fittings, there are 3 of them. These will mount on the RH side in a plate with 3 large holes in it (**See Figure 1**). These holes are stamped and some times the holes will need to be cleaned out.. Clean them with a burr grinder (**See Figure 1**). Install the Bulkhead Elbows one at a time starting at the top, tighten the retaining nut in each Elbow as you install it (**See Figure 2**). Clean each Elbow ID and Hose with clean compressed Air, put the plastic caps back on the Elbows till Hose is connected to it (See Figure 3). **NOTE: Illustrations are in general for boom connection to Alamo Prioduct and not Specific Tractor.**

2. Pump Pressure and Return Hoses. Locate the three # 16 (1") hoses. These hoses will have plastic Ties on them at the fittings.

1 st # 16 X 52" Long and will have a Red Tie on it (Hose Part # 02968158). Pressure Hose

2 nd. # 16 X 52" long and will have an Orange Tie on it (Hose Part # 02968157). Tank Return Hose

3 rd # 16 X 48" long and have Blue Tie on it (Hose Part # 02958647). Case Drain Hose Install these hose in the correct order as shown, this is critical that the do not get mixed. (**See Figure 4**)

3. Slide Sleeving over the Hoses running to the Tank. The Sleeving is used to protect the hoses from scrapping and being damaged. (**See Figure 5, 6,7**)



Figure 1



Figure 2

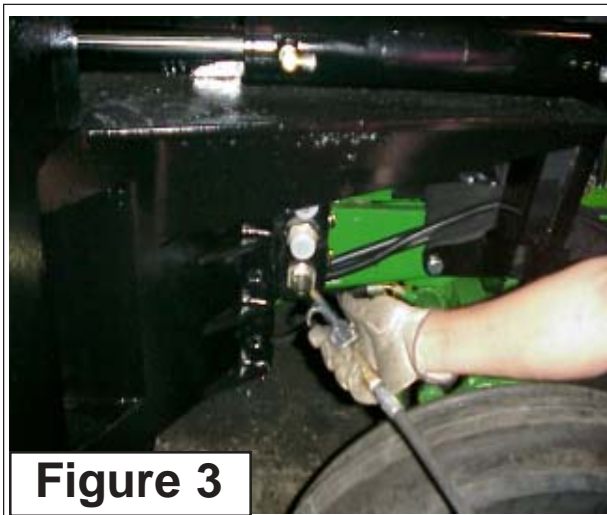


Figure 3

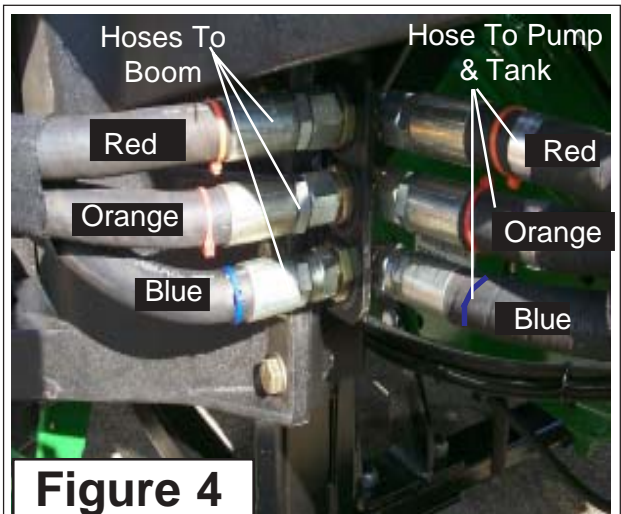


Figure 4

Hose Installation 2 WD & 4 WD

Boom Hoses / Tank Hoses:

1. Install Hose To Pump and Tank. These hoses go through a hose holder that is welded to the front Rail support that is bolted to tractor frame Rail, these hose must be run here before connecting them to Pump and tank (**See Figure 10**). These are the pressure and return hoses. The fitting on the Tank will have plastic ties on them that match the Plastic ties on the Hoses (**See Figure 8 & 9**). Connect these hose to the correct colors, Red Pressure, Orange Tank Return from Motor and Blue Tank Return from Bypass.



Figure 5



Figure 6

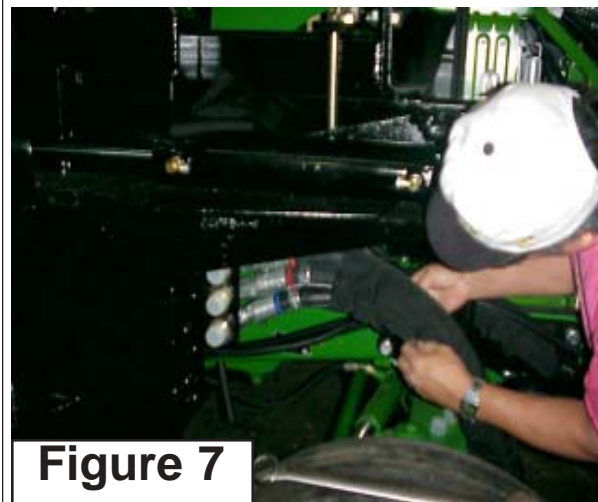


Figure 7

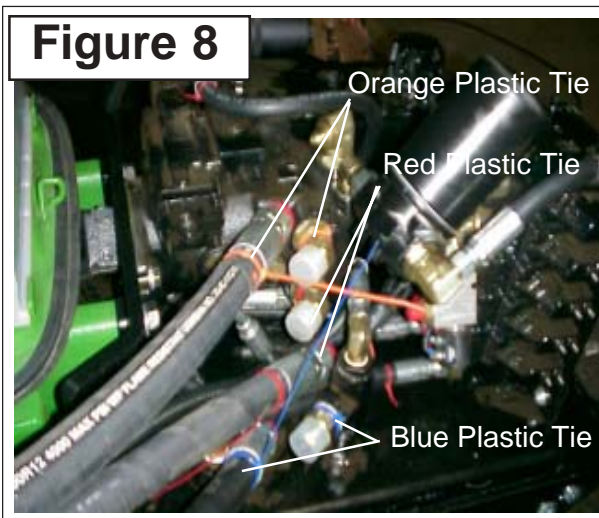


Figure 8

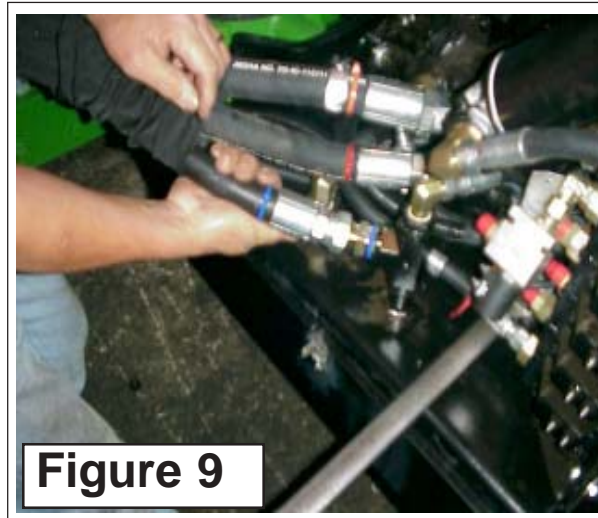


Figure 9

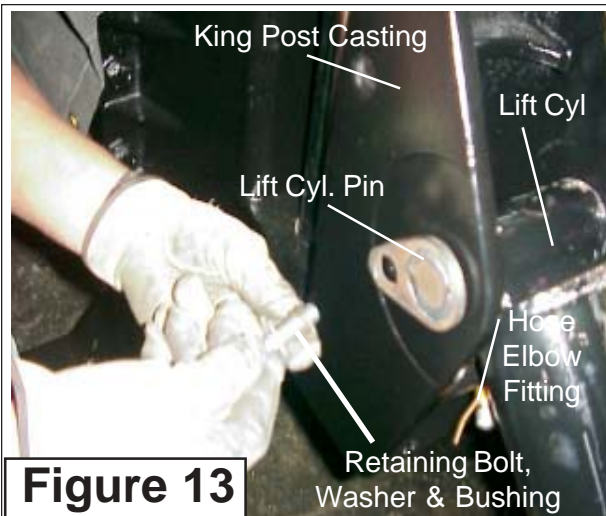
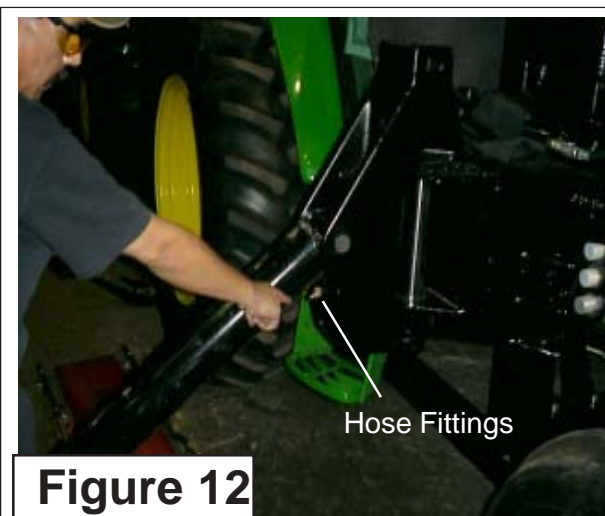
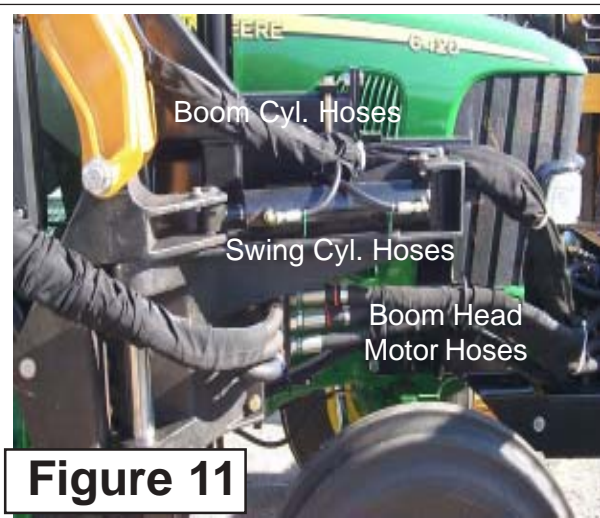
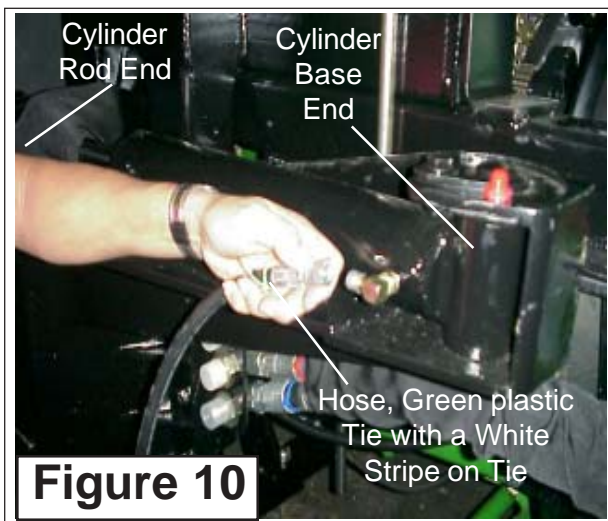
Hose Installation 2 WD & 4 WD

Boom Hoses / Tank Hoses:

1. Install Swing Cylinder Hoses. These # 6 hoses, The Cylinder Base end is a # 6 X 44" Long Hose (Hose Part # 02976735) with a Green Plastic Tie with a White Stripe on it. The Cylinder Rod End has a # 6 X 44" long Hose (Hose Part # 02976734) with a Solid Green Plastic Tie on it. Connect these two hoses to the Cylinder and have them pointing toward each other. The hoses will run up and over the top of the Swing Cylinder. **(See Figure 10 & 11).**

2. Install Lift Cylinder. Set Lift Cylinder Base End into King Post Casting **(See Figure 12).** Note the Hose fittings go toward the down side of Cylinder **(See Figure 12 & 13).** Insert Cylinder Retaining Pin, Pin installs from the Backside going toward the front. If it is installed the wrong way you will not be able to bolt the Pin down. **(See Figure 12 & 13).** When Bolting the Lift Cylinder retaining Pin in there must be a Washer and a Bushing on the Bolt, Look at the Hole in the Pin you will note how much larger hole is than bolt. Do not install Retaining Bolt with out this bushing, Pin will be to tight and could be damaged. **(See Figure 13).**

Connect the Hoses to the Lift Cylinder. The Lift Cylinder Hoses are # 6, Base end is a # 6 X 64" long Hose (Hose Part # 02976710) with an Orange with White Stripe Plastic Tie. The Rod End hose is a # 6 X 64" Long Hose (Hose Part # 02976709) with a Solid Orange Plastic Tie. **(See Figure 14)**



Hose Installation 2 WD & 4 WD

Boom Hoses / Tank Hoses:

3. Connect Cylinder Hoses To Control Valve. These Hose connections from Cylinder to Valve will match the Color Plastic ties on hose and match them with the Color in the drawing below (See Figure 15). Hose must be run where they will not interfere with Boom Movement or be hooked on something during use. Start with the Swing Cylinder and Connect the Hoses as you go up, connect and tighten a Left hose (Hoses with solid color Plastic ties) to the Left side then the Hose with the plastic tie that has a white stripe next. Put both hoses on for one Cylinder before you go up to the next. If not it is very difficult to tighten the Hose because the other one will interfere. The Hoses will be connected to the Boom Assembly already, so only the Hoses to the Valve should need to be connected. There are Hoses that are used as extensions in some Kits to make the Hoses reach the Valve. If Kit contains extension hoses they will be the same color ties to match the hoses you have. Connect the Extension hoses together with the other hoses and connect these to the Valve.

4. This is a 5 Spool Load Sense Valve. Only the Load Sense Valve will have the Load Sense Port (See Figure 15). If the valve does not have this load sense Port it is most likely a Fixed Displacement valve and will not work for this application. This valve should be easy to spot if it is wrong as one of the first hoses that should have been connected to it was the Load Sense Hose that runs from the Stack valve at the rear of the tractor.



Figure 14

Machete Control Valve Viewed from Tractor Seat

NOTE! Cylinder Ports Ports "A" and "B" will use # 6 Hoses w/ the Color Plastic Tie as listed in this drawing

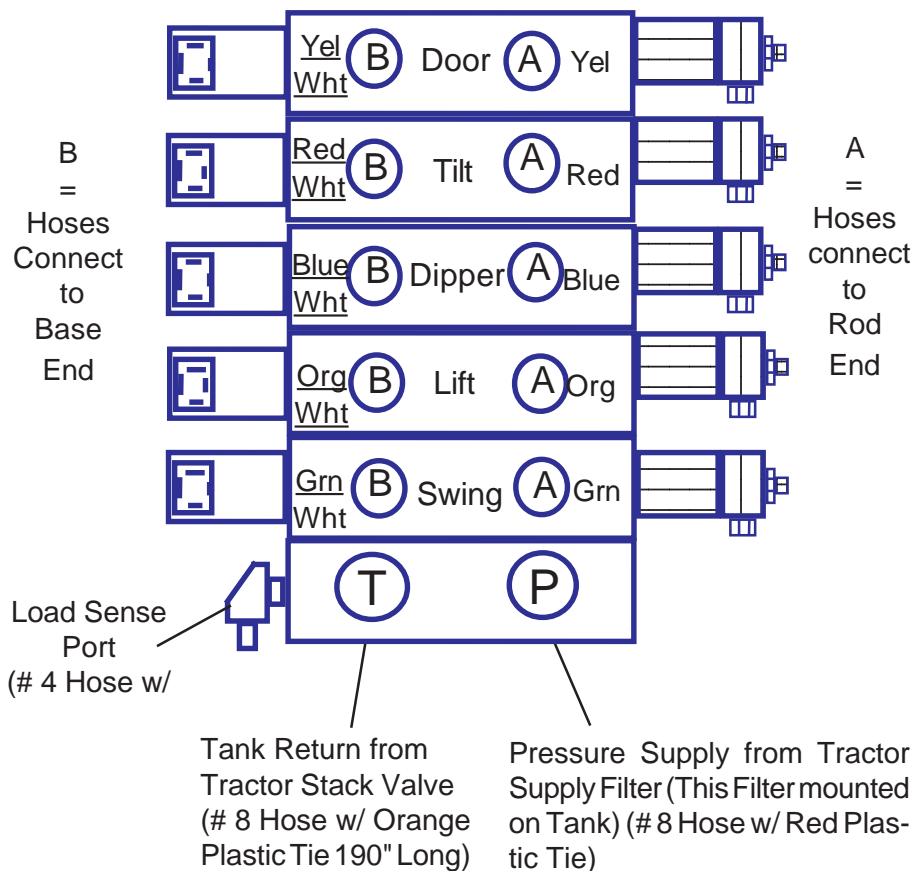


Figure 15

Hose Connecting Instructions

Valve Hose to Boom Hose Connections:

1. Hoses for Door Cylinder, Qty of two, # 4 hoses X 66" Long, one hose (# 02969124) with Yellow Tie and one hose (# 02979123) with Yellow / White Stripe Tie.
2. Hoses for Tilt Cylinder, Qty of two, # 6 hoses X 58" Long, one hose (# 02976728) with Red Tie and one hose (# 02976729) with Red / White Stripe.
3. Hoses for Dipper Cylinder, Qty of 2, # 6 hoses X 64" Long, one hose (# 02976705) with Blue Tie and one hose (# 02976706) with Blue / White Stripe Tie.
4. Hoses for Lift Cylinder, Qty of 2, # 6 hoses X 64" Long, one hose (# 02976709) with Orange Tie and one hose (# 02976710) with Orange / White Stripe Tie.
5. Hoses for Swing Cylinder, Qty of 2, # 6 hoses X 44" long, one hose (# 02976734) with Green Tie and one hose (# 02976735) with Green / White Stripe Tie.

1. Hydraulic Hose Codes:

Hydraulic Hose Band Mark Color Codes: Hose's and/or fittings are marked with a Color Coded Plastic Band around it. Some Bands are a solid Color and some have a Colored Stripe. DO NOT remove these bands unless you replace them. All Bands with Solid Colors connect to Rod End of Cylinder. All Bands with Stripes connects to Butt End of Hydraulic Cylinder (or connections leading to them).

Always Check Hose Size & Color Code

Color Tie	Color Tie Abr.	Hose Size	Hydraulic Connection
Orange	OR	Medium (#6)	Lift Cylinder, Rod End
Orange	OR	Large (#16)	Return Flow from Motor To Tank
Orange / White Stripe	OR / W	Medium (#6)	Lift Cylinder, Butt End
Green	G	Medium (#6)	Swing Cylinder, Rod End
Green / White Stripe	G / W	Medium (#6)	Swing Cylinder, Butt End
Blue	B	Medium (#6)	Dipper Cylinder, Rod End
Blue	B	Large (#16)	Case Drain for Motor To Tank
Blue / White Stripe	B / W	Medium (#6)	Dipper Cylinder, Butt End
Red	R	Medium (#6)	Tilt Cylinder, Rod End
Red	R	Large (#16)	Pressure Flow Pump To Motor
Red / White Stripe	R / W	Medium (#6)	Tilt Cylinder, Butt End
Yellow	Y	Small (#4)	Door Cylinder, Rod End
Yellow / White Stripe	Y / W	Small (#4)	Door Cylinder, Butt End
Red	R	Medium (#8)	Tractor Pressure to Control Valve
Orange	OR	Medium (#8)	Control Valve to Tractor Tank Return
Red	R	Small (#4)	Load Sense Control Valve to Tractor
Valve			

Hose Connecting Instructions

2. Hose End Fitting Torque Specs:













Hose End Type: 37 Degree Angle End Steel Hose End Fittings*

Dash Size	Nominal Cyl. Size (in.)	Torque in. lbs.	Torque ft. lbs.
-4	1/4"	140	12
-6	3/8"	230	19
-8	1/2"	450	38
-10	5/8"	650	54
-12	3/4"	900	75
-16	1"	1200	100
-20	1-1/4"	1600	133
-24	1-1/2"	2000	167
-32	2"	2800	233

* Straight Threads do not always seal better when higher torques are used. Too much torque causes distortion and may lead to leakage. DO NOT over torque fittings and DO NOT allow any contaminants to enter system through fittings when installing them.

3. Valve Port Markings:

Valve Port Markings: Ports Marked with letter "A" (solid marking hose bands) are for Functions Connected to Rod End of Cylinders. Ports Marked with letter "B" (Striped marking hose band) are for Functions Connect to Butt End of Cylinders. (See Decal # 02969106 Hydraulic Hose Hook-Up on previous pages). **Note:** Old style Valve (Apitech 10 Plug Wire Harness type) is not shown Below, this is the later style 5 Plug Harness type.

Yellow	Red	Blue	Orange	Green	Pressure
					
Door	Tilt	Dipper	Lift	Swing	
					
Yel / Wht	Red / Wht	Blue / Wht	Org / Wht	Grn / Wht	Tank



Solenoid Side Of Valve

Hose Connecting Instructions

4. Valve Restrictors:

The Restrictors Vary in size from Spool to Spool, Some Ports do not use restrictors at all, See parts page for types and sizes. Restrictors operate by controlling the rate of flow to or from a Cylinder, This is most commonly done by the size of the Hole the Oil is sent through, But can be done by Hose Size. There are also 1 way and 2 way restrictors, Check Parts pages. DO NOT Remove, Change or Modify Restrictors.

Valve Spool Functions & Specs:

Port Marked	Spool No.	Cyl. Function	Cyl. Travel	Flow GPM	Pressure Rating	Restrictor Size	Cycle Time
"A"	1	Swing	Forward	2.3	2000 psi.	0.040"	8.5 Seconds
"B"	1	Swing	Back	3.5	2000 psi.	0.050"	9.0 Seconds
"A"	2	Lift	Down	4.5	1000 psi.	-----	12 Seconds
"B"	2	Lift	Up	6.5	2000 psi.	0.070"	11 Seconds
"A"	3	Dipper	Out	4.0	2300 psi.	0.063"	10 Seconds
"B"	3	Dipper	In	5.5	1000 psi.	-----	10 Seconds
"A"	4	Tilt	Up	4.0	System	0.050"	6.0 Seconds
"B"	4	Tilt	Down	4.0	System	Lock Valve	8.0 Seconds
"A"	5	Door	Open	2.5	System	-----	5.0 Seconds
"B"	5	Door	Close	2.5	System	-----	6.0 Seconds

Section 13

MACHETE

New Holland Tractor TS-100A, 115A, 125A & 115A

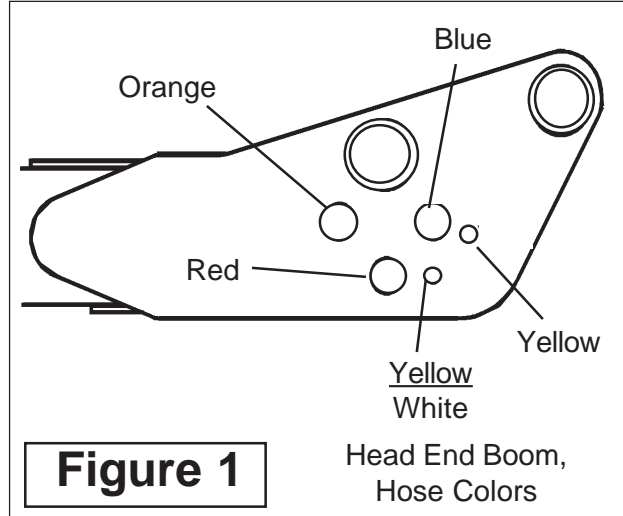
Head Installation Fill Oil Tank

Boom Installation 2 WD & 4 WD

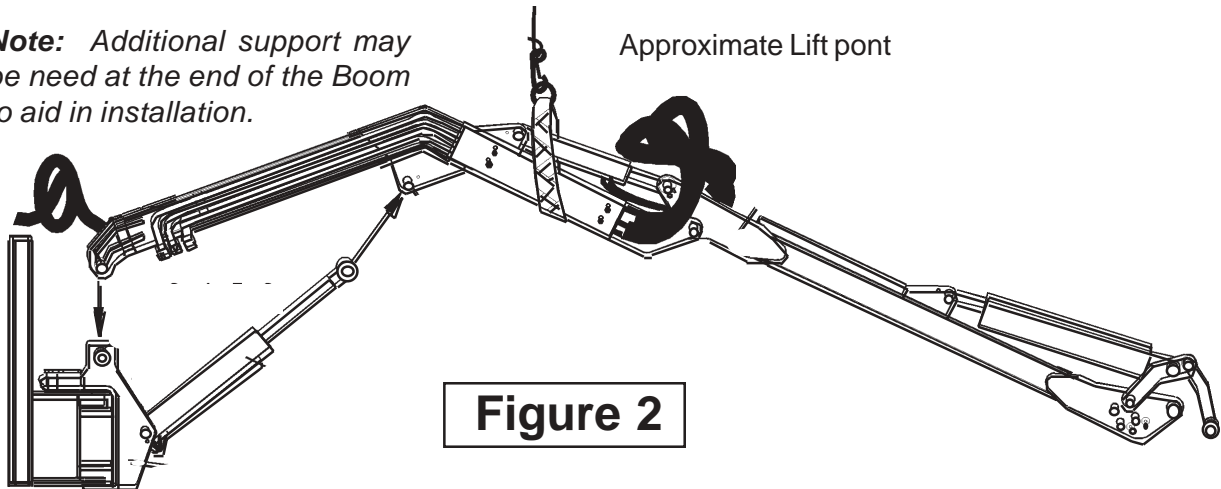
Head Installation :

1. Connect hoses to Head. This will vary with the type Head being installed. See the Head Hose Connections for the head being used in the Head Installation Steps in next pages. The Connections shown are the way they are coming from the boom. Where they connect on head will vary (See Figure 1)

2. Lifting Boom to Mount Head. The boom should be lifted with an overhead hoist when mounting the head. Do Not use the hydraulic system or start tractor as it is not connected completely yet and can damage hydraulic system. (See Figure 2).



Note: Additional support may be needed at the end of the Boom to aid in installation.



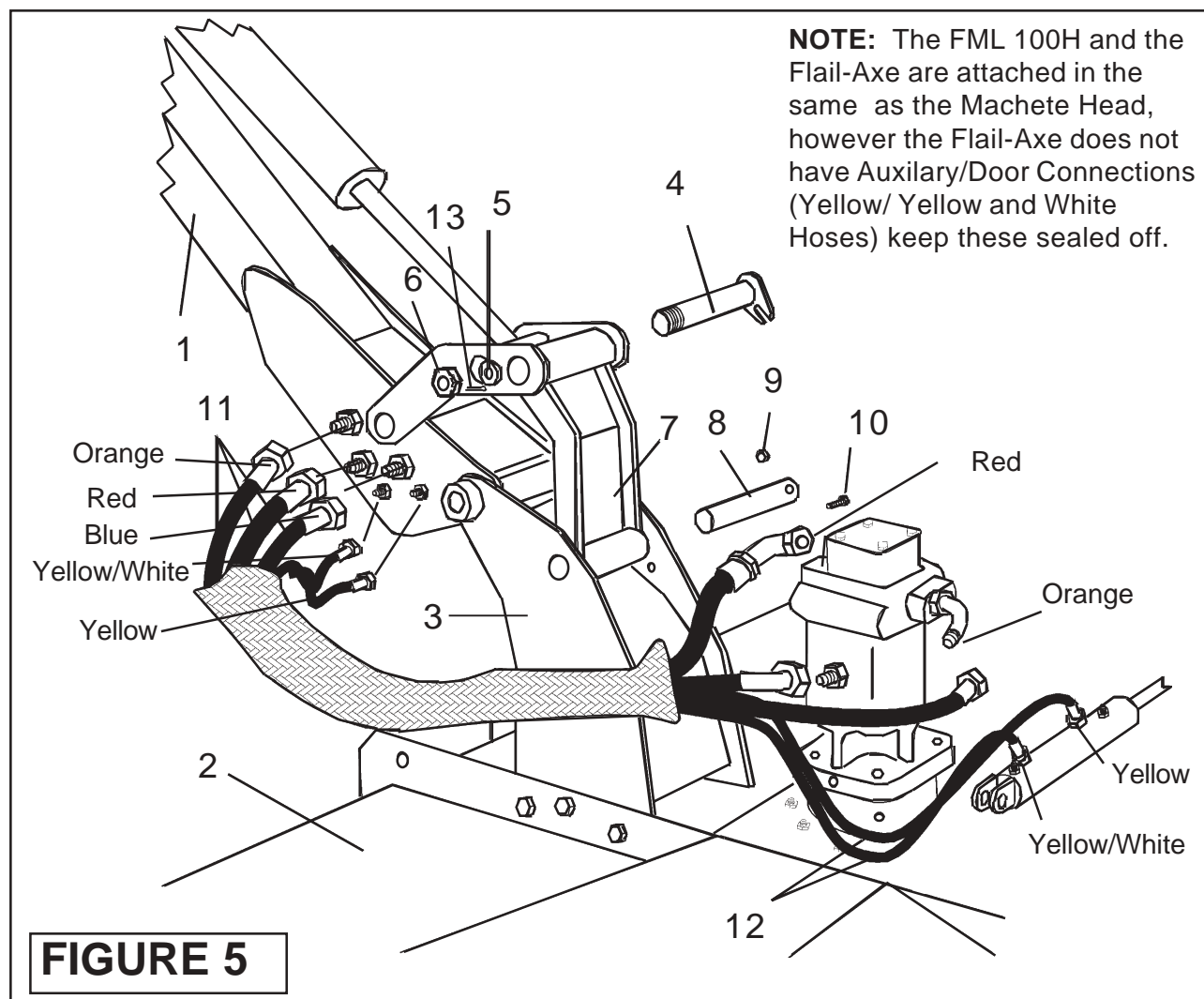
3. Install Head Mount / Pivot Pins. Position the head under the boom, remove the mounting pins (See Figure 3). Lower Boom with Hoist and install the mounting pins (See Figure 4 & 5)



Head Installation 2 WD & 4 WD

Head Installation : (continued)

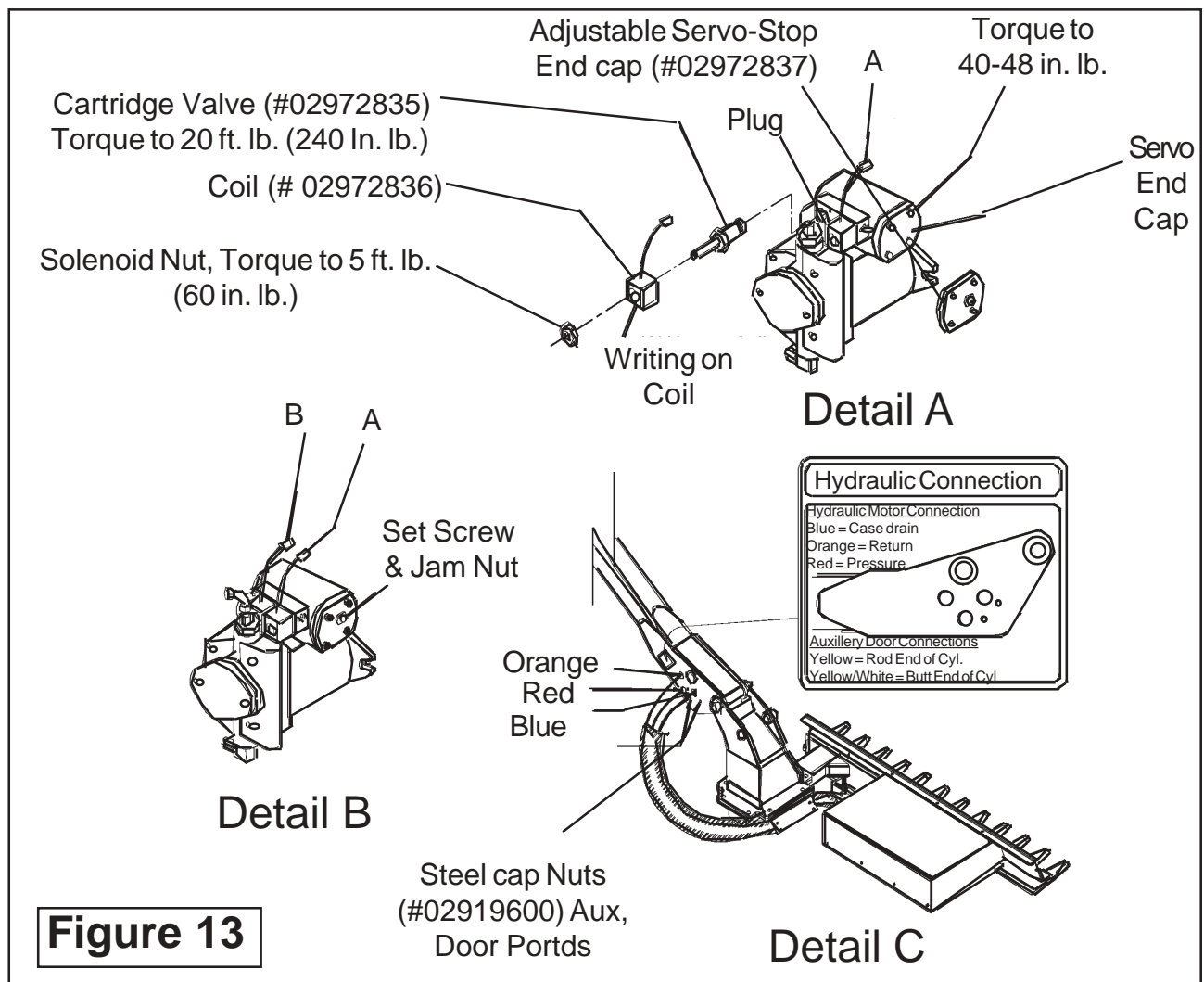
3. (Continued) With the hoist, lower the Boom (1) down to the Machete head (2). Align the Boom with the Machete Head Hitch Post (3) Insert the Upper Hitch Pin (4) Through the Dipper end of the Boom and the Machete Head Upper Hitch Post. Attach with Washer (5), Nut (6), and Cotter Pin (13) as shown in **Figure 5**.
4. Align the Lower Linkage (7) of the Boom and insert the Lower Hitch Pin (8) through the Hitch Post. Attach with Nut (9) and Bolt (10).
5. Following Hydraulic Connection Decal on Boom, Attach the Motor Hydraulics (11), To the Boom and the Motor. Attach the Door Cylinder Hoses (12) from the Boom the Machete Heads Door Cylinder. Each of these are color coded for ease of identification. Do Not cross any hose connections, check them RED = Pressure Supply to Motor, Orange = Motor Return back to Tank, Blue = Motor case drain Back to Tank. Yellow = Rod end of Door Cylinder, Yellow with White Stripe = Base end of cylinder. If the Head you are using doesn't have a Door leave the connection for Door Circuit capped at the Boom (**See Figure 5**).



Head Installation 2 WD & 4 WD

TimberCat Solenoid Valve to Pump Assembly:

1. Mounting the TimberCat on the Machete requires the addition of an additional solenoid cartridge and a new adjustable Servo-Stop End Cap to the pump. These items are included with the TimberCat Head Assembly.
2. With the tractor off, parking brake set, key removed, and all switches on the joystick console in the off position, locate the plug on the pump as shown in **Figure 23**. Remove the plug and replace it with the cartridge valve (02972835) as shown in **(Figure 13 Detail A)**. Tighten the cartridge valve to 20 ft. lb. (240 lb-in). Install the coil over the stem of the cartridge valve. The writing on the coil faces away from the pump. Install the solenoid nut onto the stem making sure NOT TO OVERTIGHTEN - torque to 5 ft. lb (60 lb-in).
3. Remove the wire harness connection from 'A' and attach to 'B' (See Figure 13 detail B). Whenever the TimberCat is installed, the harness must be attached to 'B'. When any other head is installed the harness must be attached to connection 'A'. Locate the Servo End Cap on the pump, as shown in **Figure 13 Detail A**. Remove and replace with the Adjustable Servo Stop End Cap (02972837). Torque the four mounting bolts to 40-48 in. lb.



Head Installation 2 WD & 4 WD

Timbercat Solenoid Valve to Pump Assembly: (continued)

4. Attach the TimberCat Head Assembly to the boom using the existing pins and fasteners. Attach the hoses to the ports in the boom according to the Hydraulic Connection Diagram, shown (See Figure 13 Detail C), and on the decal on the boom. Attach the steel cap nuts (02919600) to the two auxiliary/door connection ports of the boom, if they are not already installed. Check Hoses for correct connections. There is a decal on the side of the Boom showing hose connections (See Figure 14).

Ditcher Head Assembly:

1. Attach straight adapter (2) to case drain port. Then fasten hose (8) to elbow (1) and attach to straight adapter (2) --- LEAVE LOOSE. Hose must be connected at Angles shown to clear. (See Figure 15)
2. Attach hoses (3 & 4) on boom end and tighten. (See Figure 15 Boom Side View)
3. Tighten the fittings on the bottom hose (8).
4. Attach and tighten all hoses to motor after head is attached.

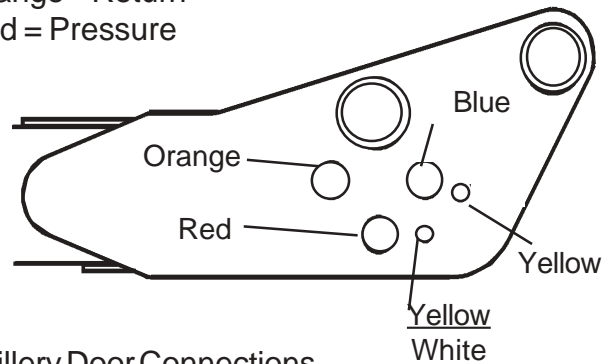
Hydraulic Connection

Hydraulic Motor Connection

Blue = Case drain

Orange = Return

Red = Pressure



Auxiliary Door Connections

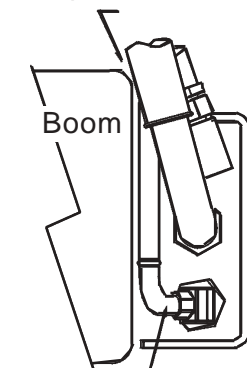
Yellow = Rod End of Cyl.

Yellow/White = Butt End of Cyl

Figure 14 Boom Head Decal

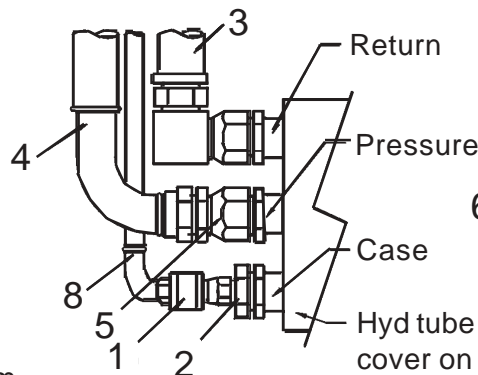
BOOM END VIEW

Hoses should be angled so crimp sleeves on hoses



Angle 45° toward boom

BOOM SIDE VIEW



MOTOR VIEW

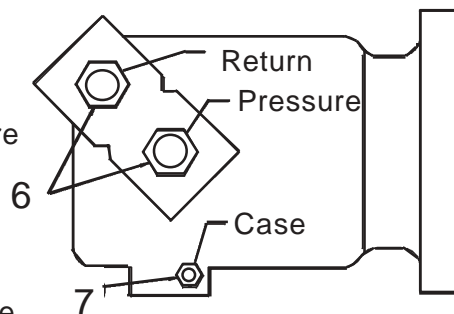


Figure 15

Hydraulic Oil Installation 2 WD & 4 WD

Hydraulic Tank Filling:

1. Remove the Filler Cap and fill the Hydraulic Tank completely full of AW ISO VG 100 Hydraulic Fluid, however do not over flow, or spill over.

2. Replace Filler Cap and clear area to **start the Tractor** and the Hydraulic Pump as outlined in the Operation Section. Make certain that the Mower Head is in a clear safe mowing position (ie. Blades down and the Door Closed).

3. Check that all the hydraulic connections are complete on the Motor Hydraulic System and the Cylinder Hydraulic System.

4. Start the Tractor and Engage the Mower (see the START UP PROCEDURE IN THIS SECTION, SAFETY SECTION, AND OPERATION SECTION for details) Run the Mower Head for 5 minutes

while the tractor is running, wearing protective clothing and eye protection, CAREFULLY check for leaking hydraulic fittings, hoses and ports at this point with a piece of cardboard, DO NOT USE YOUR HAND! Shut down completely the Mower and Tractor. And correct any leaking connections.

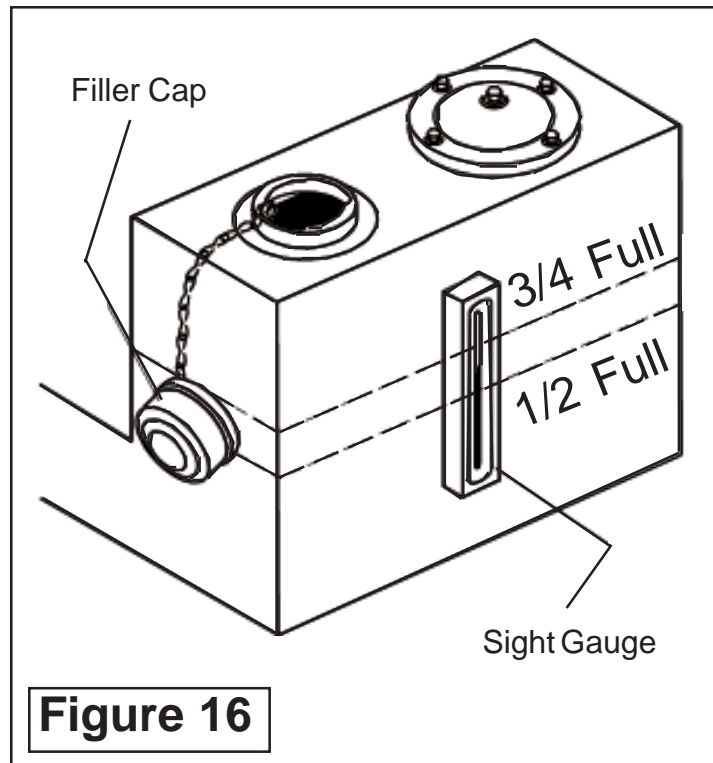
5. The Pump, Hydraulic Lines, Hoses, and Motor should now be filled with the Hydraulic Fluid. Check the Sight Gauge and add more AW ISO VG 100 Hydraulic Fluid to bring the level up to Half to Three Quarters up on the Gauge.

6. IMPORTANT: Change the return filter in tank and suction filters after the first 200 hours of operation. Change the filters again at 800 hours; then, change the oil and filters at 1600 hours. After that, continue to change the filter every 800 hours and the oil every 1600 hours. Hydraulic oil to be used, AW ISO VG 100 Tractor Hydraulic. Use the above procedures as part of a good filter maintenance program.

7. TIMBER CAT HEADS ONLY - FIGURE 26 After starting the tractor, turn on the cutter switch. Bring the tractor's RPM up to normal operating speed (540 PTO RPM). Adjust the Servo Set Screw to achieve 40 to 50 cycles* a minute (10 to 13 cycles per 15 seconds). DO NOT adjust speed any faster; premature failure will occur!

8. TIMBER CAT HEADS ONLY - One cycle is defined as the complete movement of the blade from fully retracted to fully extended and back to fully retracted. Once this cycle time is achieved, tighten the Servo Set Screw Jamnut.

9. TIMBER CAT HEADS ONLY - REMEMBER: Solenoid connection 'B' must be used whenever the TimberCat Head is attached. Solenoid connection 'A' must be used whenever any other head is attached.



Hydraulic Oil Installation 2 WD & 4 WD

Hydraulic Tank Filling:

10. Important: Change the return filter in tank and suction filters after the first 200 hours of operation. Change the filters again at 800 hours; then, change the Oil and filters at 1600 hrs. After that, continues to change the Filter every 800 hrs and the Oil every 1600 hrs. Hydraulic Oil to be used, AW ISO VG 100 Tractor Hydraulic Oil. Always use a good Filter Maintenance program.

11. Avoid hydraulic contamination by filtering the hydraulic oil while filling the hydraulic tank. Filter buggies or carts are commercially available for hydraulic system cleanup. These consist of a high-efficiency, high-capacity filter, a circulating pump, a drive motor, and hoses for connecting to the overhauled machine's hydraulic system. (See Figure 17 & 18)

When adding hydraulic oil, use only new oil from a sealed barrel. Used oil or oil from an open barrel may contain high levels of contamination. Transfer the new oil into the hydraulic tank by using a hydraulic filter pump unit equipped with a properly operating 10 micron filter. This will insure that the oil being added is clean. Do not just pour the oil directly into the hydraulic tank since most oils (even from a sealed barrel) have contaminants that should be removed, before operating the hydraulic system. (See Figure 17 & 18)

12. Basic trouble shooting guide for first start up. Listed below are some of the most common things that may be wrong, But not all problems.

- a. Electrical solenoid valve does not work - check wiring, possible faulty switch, possible faulty solenoid.
- b. Pump is making noise - check for obstruction in suction hose and tank suction assembly, check alignment of pump driveshaft.
- c. Cylinders will not raise - hoses from cylinder incorrectly connected to valve bank, pump not supplying oil.
- d. Cylinder raise slowly - hoses from cylinder incorrectly connected to valve bank, work port reliefs on valve bank set too low - replace as required.
- e. The mower head slows down or stops completely - the filter may be clogged, replace.

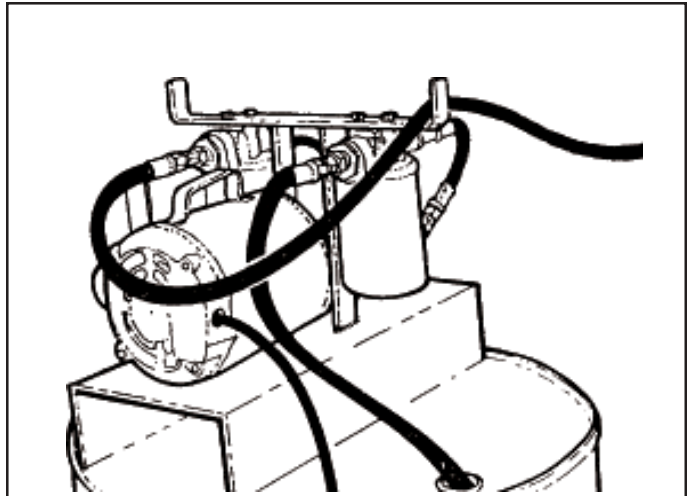


Figure 17

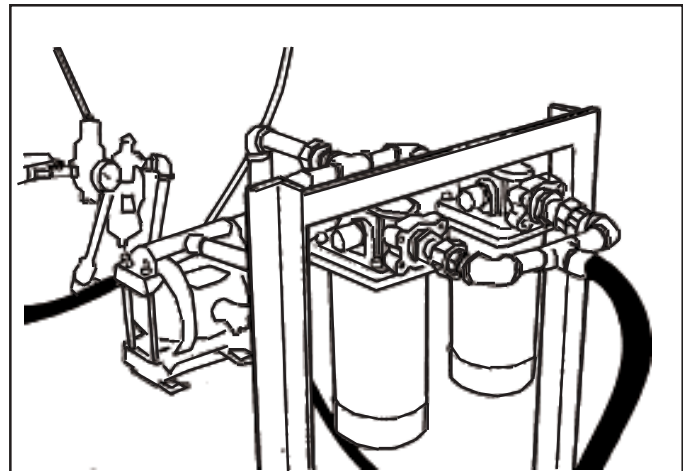


Figure 18

NOTES

Section 14

New Holland Tractor TS-100A, 115A, 125A & 115A

Optional RH Lexan Door Installation

Optional Lexan RH Door Kit Installation

New Holland "TS" Series Optional Door Kit No. 02980888

RH Lexan Door Kit. Option
P/N 02980888

Remove & Dis-Assembly of Factory Stock Glass Door.

1. To remove the factory door make certain that you use enough help to remove it safely. It is recommended to use three people as shown (see figure 1) Use some type of container to hold all removed components and hardware, some will be reused & some will not. The Assembly procedure and the dis-assembly procedure is the same except in reverse. The RH Door is a mirror image of the LH Door which can always be used for reference.

2. Disconnect the gas shock (it is inside) from the door pipe brace, disconnect it at the door end.

3. With someone supporting the door at the bottom and some one to hold the nuts inside loosen the upper hinge bolts and the lower hinge bolts (See figure 1) **CAUTION!** The lower hinge bolts also hold the Pipe brace to the window, with these hinge bolts removed **DO NOT** lift or hold window by using this brace, it could put glass window under stress causing it to break. When Removing Bolts from hinges make a note of the large rubber washer and the large steel washer and there location as they will be reused in the same location and order they are in. (See Figure 1).

4. Lay Removed door on a soft protected surface for the disassembly of the latch and brace components (See Figure 2).

(Item 1) This is the plastic cover for the latch and will snap off. (Item 2) This is the Latch and retaining bolts, nuts & washers for the latch assembly, remove them. When removing the latch you will need to lift and turn it in away that you can get the inside handle rod (connected to item 5) pulled out of its hole in the latch not the handle item 5. (Item 3) Remove the upper retaining nut and flat washer (this flat washer will not be reused) (Item 4) Remove the lower handle retaining bolt, there will be rubber washer (that will not be reused) under the steel washer. (Item 5) The outer door handle can be removed now, there will be rubber pad at the upper (larger portion) end between the glass and the handle that will have a thin pipe type spacer in it. Also the lower handle mounting bolt will have a smaller rubber pad with a metal insert in it that is between the glass and handle. (Item 6) This is the inner door handle and WILL NOT be removed from the pipe brace weldment. (Item 7) This is the pipe brace weldment and extends from latch / door handle to the lower hinge bolts. At the lower hinge bolts there will be a rubber pad between glass and metal plate, this pad will be reused. (Item 8) This is the lower mount for the pipe brace (See Figure 4 & 5 for fastener) and will be the last fastener removed, this fastener takes a special tool to remove it. See your New Holland Dealer for instruction & Removal Tool.



Figure 1

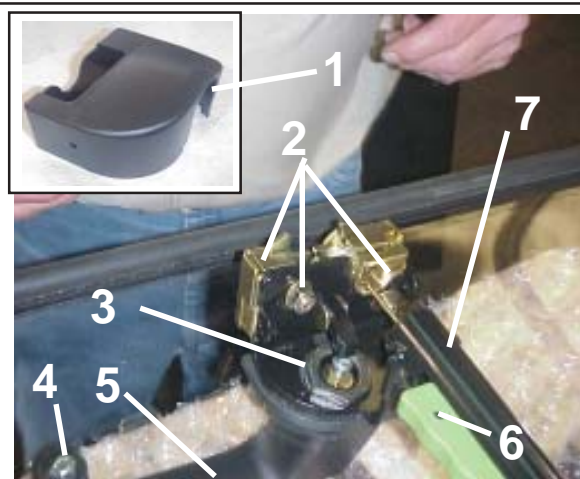


Figure 2

Optional Lexan RH Door Kit Installation

New Holland "TS" Series Optional Door Kit No. 02980888

5. Lay the New Lexan Door (P/N 02980803) on a protected surface (here we used Bubble Wrap Packing material). Install the push-on weather seal material (P/N 02980889) with the soft rubber side up as shown. This weather seal is designed to push-on with out adhesive, but you can use adhesive if you wanted. Where the two end meet an adhesive should be used to join the two end. Use an adhesve that is rubbery and dries to the touch. The 3M Co. makes a good Black weather strip adhesive that will work well for this (See Figure 3)

6. Install the pipe brace on top of door. (**Item 8**) This is the lower fastener (See Figure 4 & 5) and will need to be installed first, make certain to put the rubber washer back on fastener, install the fastener untill the shoulder of the fastener is into the hole in the door. DO NOT Tighten Fastener at this time.

7. Install Outer Door Handle and fasteners. (**Item 9**) This is the outer door handle, before it can be installed Item 10 must be modified (**Item 10**) This is the upper mount of handle rubber pad. There is a shoulder on it that must be cut off before it can be used, using a sharp knife cut this shoulder off, The tube Spacer shown with item 3 goes through the hole of item 10 and then slide over threads of item 9.

8. Push the lower rubber (with steel insert in it) into the hole of the door, holding the handle in place from the bottom start the bolt & washer item 4, there was a rubber washer used under item 4 bolt. In some cases it can not be reinstalled, check bolt engage ment to see if it can be used.



Figure 3



Figure 4



Figure 5

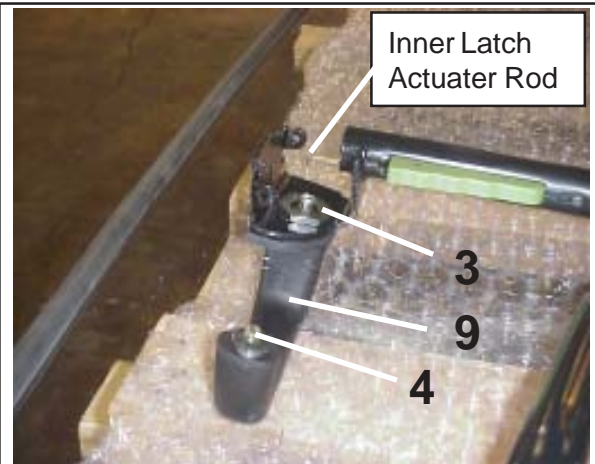


Figure 6

Optional Lexan RH Door Kit Installation

New Holland "TS" Series Optional Door Kit No. 02980888

9. Insert Handle into door from bottom, make certain item 3 tube spacer is inserted through hole of door and through hole of pipe brace, there is a rubber pad to reinstall between pipe brace plate at upper latch and door (See Figure 6) Install item 3 Nut onto handle, Note when disassembled there was a large flat washer here. The flat washer WILL NOT be used in reassembly. Snug the item 3 nut but DO NOT tighten.

10. Lifting the Latch and turning to the correct angle slide the latch actuated rod through the hole on the latch. Turn and lower latch in place. Using the original Bolts, Washers and nuts bolt on the latch to pipe brace (See Figure 7). These can be tightened at this time.

11. Prepare the Door Hinges which are still on tractor (See Figure 8) by making certain the round rubber washers are in place, the ID of washer will have the shoulder of the hinge sticking through it as shown (See Large Rubber Washers Figure 8). The lower hinge uses a two hole oblong rubber pad between door and pipe brace.

12. Install new door, make certain all rubber pads are in place, Holding door push the lower hinge up to door. Install the new 5/16" NC X 1-3/4" Gr. 5 Bolts P/N 00021900 from kit, Use the old small OD structural flatwashers that were removed from original door. The Top Hinge on the inside will have a round rubber washer pad and a large round steel washer. The lower hinge should have the oblong rubber pad with two holes in it. Put the New 5/16" NC locknuts with any washers that were remove form original door. While supporting the door (see Figure 9) tighten the hinge mounting bolts, Do this slowly and carefully making certain the shoulder oh hinge goes through hole in door. DO NOT over tight these bolts. Tighten the other fasteners on the door brace and latch handle. If Door is not fitting right the door striker bolt on the inner cab frame is adjustable by loosing it up and moving it in or out as needed. USE CAUTION when cleaning the Lexan door, DO NOT use any cleaner that is harmful to plastic, Read all directions for cleaner use befor using it, if using it for the first time on the Lexan door, test it in a small out of the way place. DO NOT use rough material such as paper towels to clean Lexan Door.

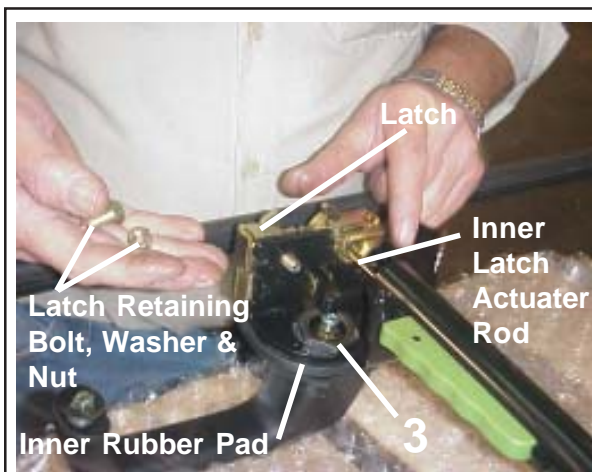


Figure 7



Figure 8



Figure 9

Section 15

MACHETE

**New Holland Tractor
TS-100A, 115A, 125A & 115A**

PRE-DELIVERY INSPECTION CHECKLIST

MACHETE PRE-DELIVERY INSPECTION CHECKLIST

Pre-Operation Inspection: Check the following items before operating the unit to assure that they are properly assembled. (See following page 1-4 for component location)

Safety Equipment:

- Operators Manual is with Unit.
- The Safety Decals are installed as listed in the Assembly Manual.
- Valve operation plate is installed.
- Operators cage or Tractor Cab is in place. (Item 1 page 1-4)
- Deflectors are installed on the Mower Head. (Item 2 page 1-4)
- Tractor Rops or Cab with seatbelts installed properly.

Frame and Boom:

- Axle Plate Bolts are torqued to 240 ft. lbs. (Item 3 page 1-4)
- Boom Rest Axle Plate Bolts are torqued to 240 ft. lbs.
- Front Rail Bolts are torqued to 170 ft. lbs. (Item 17 page 1-4)
- Front Support Bolts are torqued to 240 ft. lbs. (Item 4 page 1-4)
- Hydraulic Tank mounting Pins / Bolts in place correctly.
- Boom Main Pins are torqued to 170 ft. lbs.
- King Pin Retaining Nut is properly locked in place.
- All Welds inspected to insure proper welds and locations.

Hydraulic System:

- Oil Level in Hydraulic Tank is within the sight gauge. (Item 5 page 1-4)
- Hose connections are tight.
- Hoses do not have any kinks or twist in them.
- Front Pump Shaft adapter bolts are tight. (Item 6 page 1-4)
- Front Pump Shaft Coupler / Drive Shaft is lubricated and has an anti-seize compound on the Splines of Pump and Shafts. (Item 7 page 1-4)
- The Pump Drive Shaft has correct alignment.
- Suction Hose has no leaks or kinks.

Rotary Mower Head:

- Skid Shoe Bolts are torqued to 120 ft. lbs. (Item 8 page 1-4)
- Spindle Housing Bolts are torqued to 400 ft. lbs. (Item 9 page 1-4)
- The Spindle Housing is properly lubricated. (item 10 page 1-4)
- Motor Bolts are torqued to 120 ft. lbs. (Item 11 page 1-4)
- Blade Carrier (Bar) Bolts torque to 400 ft. lbs. (Item 12 page 1-4)
- Blade Bolts are torqued and the retainings Pins are in place. (item 13 page 1-4)
- Blades Swing freely. (Item 14 page 1-4)

MACHETE PRE-DELIVERY INSPECTION CHECKLIST

Pre-Operation Inspection: Check the following items before operating the unit to assure that they are properly assembled. (See following page 1-4 for component location)

Flail Mower Head:

- ___ Skid Shoe Bolts are torqued to 120 ft-lbs (Location 15)
- ___ Motor Bolts are torqued to 120 ft-lbs
- ___ Belt Alignment & tension adjustment is correct
- ___ Cutter shaft bearings are properly lubricated
- ___ Roller bearings are properly lubricated (Location 16)
- ___ Blades swing freely

Tractor Mower Operation Inspection:

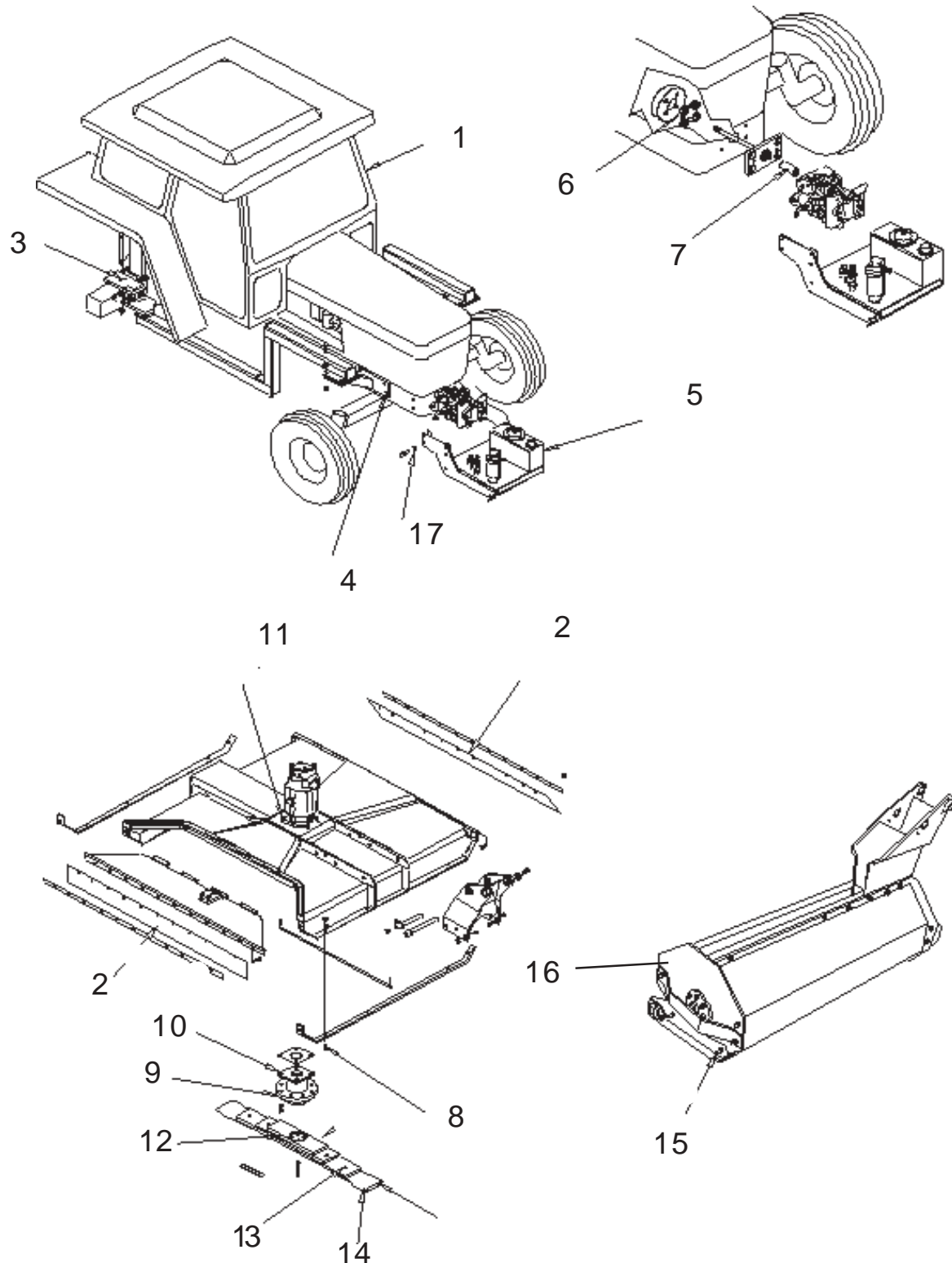
Using all Safety precautions, operate the Tractor and Mower unit for 30 minutes and while the unit is running check the following items: **Note!** Only make adjustments after the mower has been turned off and all motion has stopped and all hydraulic pressure has been relieved.

- ___ Check for Hydraulic oil leaks at the hose connections
- ___ Operate the boom and mower head throughout its full range of motion and check for hose's rubbing, pinching, or kinking.
- ___ Make sure the Return Filter Gauge is reading in the Green after Oil is warm.
- ___ Check the function of the Mower Head On-Off Valve and switch for proper function
- ___ Make sure that the tractor will not start with the mower on-off switch in the on position.
- ___ Check the Blade Rotation for the Rotary Mower Head to make sure it is turning Clockwise looking from the top of the mower deck.
- ___ Make sure the control valve boom movements agree with the valve operation decal.
- ___ Make Sure Boom Movement operates as expected and is smooth and under control (no air in the control system)
- ___ Look for any unusual or excessive noise or vibrations.
- ___ Make sure the left rear wheel of the tractor stays on the ground when the boom is fully extended horizontally with 200 lbs. placed on the outside of the mower head.

Post-Operation Inspection:

- ___ Check that the oil in the hydraulic tank has not turned milky in color or has foam on top.
- ___ Check that there are no loose fasteners or hardware.

Tractor - Mower Component Location For Check List





**Machete Assembly Manual
New Holland
TS100A & TS115A
2004 Edition
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Machete (NH TS100A & TS115A Asy. Manual) 10/04

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